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Sustainable Development and the 2002 World Summit

The United Nations Conference on Environment and Development in 1992, commonly referred to as the Earth Summit, initiated several large commitments to the global environment. In August 2002, the World Summit on Sustainable Development (also referred to as Rio +10) was held in Johannesburg to review the progress made over the ten years since the Earth Summit. The summit was widely considered to have achieved little progress.

This paper looks at the concept of sustainability and the action being taken by the UK to address some of the commitments made in 1992.

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Summary of main points

The planet Earth forms the basis upon which human life is sustained. The energy of the Sun is captured within the biosphere and converted to resources that are eventually utilised by humanity in a variety of ways. The use of resources on Earth has to be managed to ensure that use does not exceed production.

Economic development has not occurred uniformly across nation states. Some nations are more developed and wealthy than others. The need for these countries to develop puts greater pressure upon the planet as increased development has normally been accompanied by greater energy use and greater waste production.

Both energy use and waste production impact on the environment and endanger the ability of the planet to sustain the human race. For the whole of the human race to be brought onto an equal economic footing could have threatened the continued existence of the race. Recognising this, the concept of sustainable development was established.

Sustainable development was an attempt to integrate the need for nations to develop and grow with the concomitant need to conserve the natural systems that sustain life on Earth. The world's governments came together in Rio de Janeiro in 1992 to agree a framework within which sustainable development might be achieved.

Since the 1992 Rio de Janeiro Earth Summit, there have been two meetings to review progress. The latest, the World Summit on Sustainable Development, was one of the largest summits ever organised. While it is feared that little progress was made at the summit it is hoped that it may have re-focussed attention on the need for sustainable development.

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I The Concept of Sustainability

The concept of sustainability is most likely ancient in its crudest form. Most early human settlements were aware of the need to separate the waste products of their existence from those areas they relied on for food and water and to allow natural resources to recover or replenish themselves. Under the low population conditions then present, slash and burn agriculture could be sustainably utilised, moving from place to place and allowing the land to recover before returning to exploit its fruits in the future.

The problem has always been the unforeseen consequences. It is widely believed that the early Sumerian cultures in the fertile crescent suffered from a collapse of the agricultural system due to irrigation practices which caused salination of the soil. This technological advance had allowed better and more predictable crops but the Sumerians were unaware of the intricacies of water chemistry and that constant use of groundwater would slowly overload the soil with salts. These salts had a long term detrimental impact on the fertility of the soils until eventually virtually all fertility was lost and the culture fragmented as people migrated to areas where the soil was still fertile. Another example is that of Easter Island where the inhabitants used the trees for wood more quickly than the trees could grow. This unsustainable activity resulted in the complete deforestation of the island. As the trees came down the land began to erode. When the topsoil, now unprotected by the trees, washed into the sea the crops began to fail and eventually the island was bereft of the necessary resources to sustain a human population.

With sufficient advanced knowledge of water chemistry and desalination techniques, the Sumerian civilisation might have been saved. Instead, it probably collapsed as the soil was drained of essential nutrients such as phosphate and nitrates through overuse. It is not the development as such that caused the collapse but ignorance of the long-term effects of the particulars of the development.

As the environment is extremely complex, it is probably impossible to ever completely understand the potential impacts of any development. As science progresses, however, we understand, in ever greater detail, the 'likely' consequences of particular courses of action and more of the wider consequences of those actions on the environment. The development of spaceflight required mankind for the first time to seriously consider the requirements of sustaining life in space: to seriously consider all of the functions that our planet provides on a daily basis. It may have been such considerations that led to the comparison of the planet to a spaceship. The following is a quotation from Frank Borman, a NASA astronaut:

When you are privileged to view the Earth from afar, when you can hold out your thumb and cover it with your thumbnail, you realise that we are really, all of us around the world, crew members on the space station Earth. Of all the accomplishments of technology, perhaps the most significant one was the picture of Earth over the lunar horizon. If nothing else, it should impress our fellow man with the absolute fact that our environment is bounded, that our resources are limited, and that our life support system is a closed cycle. And, of course, when

this space station is viewed from 240,000 miles away, only its beauty, its minuteness, and its isolation in the blackness of space, are apparent. A traveller from some far planet would not know that the size of the crew is already too large and threatening to expand, that the breathing system is rapidly becoming polluted, and that the water supply is in danger of contamination with everything from DDT to raw sewage. The only real recourse is for each of us to realise that the elements we have are not inexhaustible. We're all in the same spaceship.¹

A. Spaceship Earth

The analogy of the planet Earth to a spaceship has often been used. The phrase was coined by R. Buckminster Fuller in his 1963 book *An Operating Manual for Spaceship Earth*. While the planet does not share many obvious features with popular thoughts about spaceships such as those seen in Hollywood movies there are some fundamentals that can be compared.

Like a spaceship, the planet is moving at fantastical speeds through space. The Earth is continually rotating, the reason we have night and day. If a person stands at a point on the equator they are moving, relative to the centre of the planet, at a speed of 1,670 kilometres and hour (0.5 kilometres per second). However, this is quite slow compared to the motion of the planet around the Sun (orbital velocity). The Earth moves at a speed of 30 kilometres per second (approximately 100,000 kilometres per hour), relative to the Sun. This may seem fast enough but the Sun itself is in motion around the local (Milky Way) galaxy at a speed of 250 kilometres per second (over 800,000 kilometres per hour). Even then, the whole galaxy is moving within a cluster of galaxies towards another cluster (the Virgo cluster) at a speed of 300 kilometres per second.

'Spaceship Earth' can therefore be considered to be moving, with its living cargo, towards the Virgo Cluster at speeds exceeding 1 million kilometres per hour. Its human passengers have little say in which direction the spaceship heads.

Like any other vessel travelling in space, the Earth must supply all of the necessities of life for its passengers. For human life to exist without technological support there are certain basic provisions. These include temperatures that allow maintenance of a body temperature of 37°C,² sources of food (reduced carbon compounds³) to be eaten and metabolised, oxygen and clean water. The Sun is the major energy source for life on earth but human life needs to be protected from much of the radiation given off by the

¹ Quoted in: James Clarke, *Coming back to Earth*, Jacana, 2002

² At environmental temperatures of 27°C and below, a naked human begins to lose the ability to maintain his internal body temperature and the metabolic rate begins to rise. This may, if exposure is prolonged, lead to death. Upper temperatures depend on humidity but once the internal body temperature reaches 42°C death quickly follows.

³ The majority of species on Planet Earth, especially the animal species require a source of chemical energy as food. This chemical energy is most often provided in the form of reduced carbon compounds, that is, carbon compounds rich in available electrons.

Sun. The atmosphere of Spaceship Earth provides protection from that radiation and from the physical debris that often collides with the planetary atmosphere.

The Earth has carried out general life support functions for approximately 3.5 billion years (though life at this time is likely to have had very different requirements than that of today) and it is these that must be sustained. These functions can be broken down into some broad categories.

1. Temperature Control

The main features of the temperature control system are the rotational period and the atmosphere. The rotational period of the earth works very much like a spit on a barbecue, each part of the planet is exposed to the heat source (the Sun) for a certain period of time (daytime). When that part of the planet is exposed to the Sun it begins to warm and when it faces away from the Sun (night) it radiates that heat into the vacuum of space. If the rotational speed was slower then the temperature extremes would be higher as more time would be given to heating and cooling (though the average would possibly remain similar).

The atmosphere works, like a blanket, to prevent too rapid cooling during the night periods. Energy from the Sun enters the atmosphere and strikes the ground, heating it. That heat energy does not travel back through the atmosphere as efficiently and so its eventual departure from the atmosphere of the Earth is delayed. Trapping heat energy within the atmosphere keeps the temperature higher than it might otherwise be.

This greenhouse effect works all the time, night and day, but value to the planet is most apparent during the night periods.

2. Provision of Food

Essentially, the provision of food on Earth is a hugely complex arrangement. Specialist lifeforms (for example plants and certain microbial species) capture the energy radiated from the Sun and convert it into chemical energy through a process called photosynthesis.

Life is based on the flow of energy. *Primary producers* capture energy radiated from the Sun and create high energy chemical compounds in their biochemical system. These compounds are used, through series of enzymatic reactions⁴ called *metabolic pathways*, to generate chemicals called *reduced carbon compounds*. Reduced carbon compounds, more commonly referred to as food, provide a source of energy for most other organisms, including humans, allowing for growth or for other biological purposes such as movement and reproduction.

⁴ The conversion of compounds within living systems is carried out by specialised proteins called enzymes. These enzymes reduce the energy required to make chemical changes and facilitate the capture of energy when breaking down food chemicals.

3. Provision of water and air

Life on Earth requires water. Many of Earth's species require that water be in a form that is relatively pure and free from contaminants most especially free from salts. To properly metabolise their food there is also a requirement for oxygen. Animals, such as man, breathe in oxygen and combine it with carbon during the consumption of food and breathe out carbon dioxide as a 'waste product'. This process is called respiration. Without oxygen the metabolism of man would become 'jammed' and thus unable to derive any benefit from food consumed.

On Earth there needs to be a mechanism ensuring that the 'used' oxygen (transformed into carbon dioxide) is recycled back to oxygen and that 'used' water (contaminated by salts and other compounds) gets purified.

The photosynthesis process, mentioned in subsection 1, transforms carbon dioxide into oxygen, thus completing a cycle of oxygen and carbon. Plants (along with other photosynthetic species) can recycle oxygen at the same time as they capture solar energy and produce reduced carbon foods. They are therefore a central component of Spaceship Earth's life support systems.

The recycling of water occurs mainly through meteorological and hydrogeological cycles. The ambient temperature ensures the continued presence of liquid water but even so, water evaporates and later precipitates back onto the land. This cycle of evaporation and precipitation will produce purified water. Water can also undergo filtration processes as it moves through organic material and rock which remove impurities.

If uninterrupted, these processes will re-circulate oxygen and water for the passengers of Spaceship Earth.

The analogy of the spaceship is, however, often rather humanity-focussed in nature. It is easy to assume that the functions of the planet are there to service humanity and maintain the human species. That humanity is more important than the simple continued existence of life. It is possible, however, that the character of the planet could be changed to an extent that it was inimical to human life yet remain a safe harbour for other forms of life. If this is not to happen, then the current nature of the planet has to be sustained or humanity has to adapt.

B. Sustaining Planet Earth

The concept of sustainability is closely linked to the spaceship analogy. Sustainability is essentially recognising that humanity needs life support functions to survive in the universe; and that the planetary systems we have until now depended upon may have limits. Sustainability is also "humanity-focussed" in that the thrust is towards preserving those conditions that mankind requires to survive on Earth. The following sections look

at the four main systems that provide the life support functions of the planet Earth and which sustainability policies seek to conserve.

1. Atmosphere

The mix of gases around the solid matrix of planet earth is referred to as the atmosphere.

Atmosphere Facts

The atmospheric concentration of carbon dioxide, the major greenhouse gas, has risen to over 360 parts per million from a pre-industrial level of about 270 parts per million. One third of the carbon dioxide generated by human activities in recent years will still be in the atmosphere 100 years from now.

Source: UN Summit Factsheets

http://www.johannesburgsummit.org/html/media_info/factsheets.html

The burning of fossil fuels and biomass is the most significant source of air pollutants such as SO₂, CO, certain nitrous oxides such as NO and NO₂ (known collectively as NO_x), suspended particulate matter (SPM), volatile organic compounds (VOCs) and some heavy metals. It is also the major anthropogenic source of carbon dioxide (CO₂), one of the important greenhouse gases. Between 1973 and 1998, total energy supply increased by 57 per cent, the majority provided by oil...

Urban air pollution is one of the most important environmental problems. In most European and North American cities, the concentrations of SO₂ and SPM have decreased substantially in recent years (Fenger 1999, US EPA 2000). However, in many developing countries, rapid urbanization has resulted in increasing air pollution in many cities (Fenger 1999), WHO air quality guidelines are often not met and, in megacities such as Beijing, Calcutta, Mexico City and Rio de Janeiro, high levels of SPM prevail (World Bank 2001).

Persistent organic pollutants (POPs) are known to decay slowly and they can be transported over long distances through the atmosphere. High concentrations of some POPs are found in polar areas (Schindler 1999, Masclat and others 2000, Espeland and others 1997) with potentially serious regional environmental impacts.

Global Environmental Outlook 3

<http://www.grid.unep.ch/geo/geo3/pdfs/Chapter2Atmosphere.pdf>

A commonly measured attribute of the atmosphere is air pressure, the force that the atmosphere exerts against a solid surface. At increasing heights above the surface, air pressure diminishes, representing the fact that there are fewer and fewer molecules of atmospheric gases present. At a height of 30 miles air pressure has decreased to almost 0.1% of that experienced at ground level and there is no abrupt boundary a traveller can point to and declare the end of the atmosphere.

Layers have been detailed in the atmosphere that are important in determining meteorological details of weather and the effects of space weather on the Earth. It is also important to understand the effects that even such thin air as exists in the outermost (thermosphere) layer can have. The layer of most direct importance to mankind (the one with which mankind interacts) is that closest to the ground, the troposphere, though the ozone layer in the stratosphere performs an important protective role.

The ozone layer and air temperatures probably enjoy the greatest public awareness of physical atmospheric concerns. The ozone layer exists in the troposphere, at its maximum concentrations about 25km above ground level. Conditions in the

atmosphere encourage the production of ozone (O₃) from oxygen (O₂) and it is common

knowledge that ozone protects us from the ravages of ultraviolet light. It is not common knowledge that ultraviolet light is the same kind of radiation, electromagnetic radiation, as the light that allows us to see. In essence the ozone layer filters out the damaging radiation while allowing the useful parts to pass through. This functionality occurs due to the differences in wavelength of the radiation.

This selectivity also comes in useful in maintaining the temperature equilibrium of the planet. Light energy radiated from the Sun passed through the atmosphere with little interaction while heat (infrared) radiation finds it difficult to pass through the atmosphere. When light energy strikes the ground and heats it up, the energy is re-radiated in the form of heat. Eventually that heat energy is radiated out into space but the delay to the heat energy means that the earth cools down more slowly than it would otherwise and keeps night-time temperatures higher than they would otherwise be. This dampening of temperature swings also has a dampening effect on the weather, precluding more severe weather events.

The physical presence of atmospheric gases can also be more readily apparent. Just as jumping into a pool of water at high speed can make the water surface feel solid, even higher speeds can do the same for the atmosphere. Spaceships have to be carefully steered into the atmosphere to avoid causing themselves extreme physical damage. However, small impacts from space debris smash into the atmosphere, often completely disintegrating rather than striking the ground: an important protective function of the atmosphere. The moon has no atmosphere and its cratered surface demonstrates its lack.

The physical presence of the atmosphere is also demonstrated in the pressure it exerts upon surfaces, just like a blanket upon someone in bed. Made up of millions of moving particles constantly striking physical surfaces, the air presses against all surfaces exposed to it, an activity easily measured by a barometer and referred to as *air pressure*. It may not be readily apparent but without this air pressure most biological cells would burst as the internal pressure of the cells tried to expand beyond the bounds of the cell walls. Life has evolved under pressure from the air and its physical structures rely on the presence of that pressure to function.

There is little that can be done to upset air pressure or the frictional barrier but temperature and ozone both have potential for human influence. If the composition of the environment is changed so that the production of ozone is reduced, or that the destruction of ozone encouraged then it is possible that more damaging radiation will reach the surface of the planet with consequences for those animals exposed to the radiation. If the composition is changed such that heat escapes more quickly or more slowly then it is likely that the average temperature of the planet will fall or rise, respectively.

It is believed that both of these influences have occurred already. The release of chlorofluorocarbons into the environment has encouraged the destruction of ozone in the stratosphere resulting in a 'hole' in the ozone layer. The release of carbon dioxide in massive quantities has increased the atmospheric concentrations of this gas which is centrally implicated in heat retardation. Thus there is a widely held belief that mankind is

encouraging a warming of the climate. Each of these impacts can be addressed and might require action to maintain the current functions of the planet.

2. Soil

Biologically, the soil is the most important facet of geology. While most rocks and minerals are by comparison fairly stable and inert the soil is a dynamic mixture of

Land Use Facts

Desertification affects almost a quarter of the total land area of the world, and almost 70 per cent of the world's drylands face further degradation. Often caused by overgrazing and overuse of marginal land, and closely linked with rural poverty and hunger, desertification threatens the livelihoods of over 1 billion people in 100 countries.

Over the last decade, the world lost a net total of some 94 million hectares of forest, an area larger than Venezuela. The rate of deforestation is highest in developing countries in tropical areas, where 4 per cent of the region's forests were lost over the last decade.

Source: *UN Summit Factsheets*

http://www.johannesburgsummit.org/html/media_info/factsheets.html

...the excessive use of fertilizers and other chemicals contributes to soil degradation and water pollution. Between 1972 and 1988, global fertilizer use grew at an annual average of 3.5 per cent or by more than 4 million tonnes a year (FAO 2001).

Soil erosion is a major factor in land degradation and has severe effects on soil functions — such as the soil's ability to act as a buffer and filter for pollutants, its role in the hydrological and nitrogen cycle, and its ability to provide habitat and support biodiversity. About 2 000 million ha of soil, equivalent to 15 per cent of the Earth's land area (an area larger than the United States and Mexico combined), have been degraded through human activities.

Global Environmental Outlook 3

<http://www1.unep.org/geo-text/0043.htm>

inorganic and organic materials. Soil is the matrix within which plants have room to grow while providing access to water and nutrients necessary to that growth.

Plants are important to other organisms on the planet as they form one of the major groups of *primary producers*.⁵ They regenerate oxygen gas and capture and store solar energy. To do this they require 'good' soil. Good soil can be defined as a matrix that will support the growth of healthy plants.

Soil is a complex arrangement that is still poorly understood. What is certain is that misuse can cause good soil to go bad or the loss of the soil completely. Plant growth on soil leads to the depletion of water and nutrients such as phosphate and nitrate. In an unexploited ecosystem a steady state is reached where the plants grow to the limits that the ecosystem will allow, the growth checked by nutrient loss and the

nutrients replenished through the degradation of detritus on the surface of the soil and the weathering of minerals within the soil itself. Mature plants are less of a drain on the ecosystem and so the soil has a chance to 'rest'.

⁵ The organisms responsible for the primary capture of energy from the Sun and converting it into chemical energy that other organisms can use as food.

In exploited ecosystems, such as agricultural land, plants are grown each year from seed. Mature plants are harvested and the soil has little opportunity to rest. Indeed, by the use of fertiliser and irrigation the growth of plants can be accelerated and the depletion of nutrients increased beyond any capability of the soil to sustain itself.

One example of this was evident in the mid 1930's, the 'dust-bowl' years, when American mid-west farmers had cleared land and utilised it beyond its capability to sustain itself. Very quickly the land lost any ability to replenish itself and blew away in the wind, leaving almost 50 million acres of land that was of little use for plant growth.

Considering the role of plants in regenerating the oxygen we breathe and being the food we eat it is important that we sustain the material plants need to grow. The difficulty is that soil is complex chemically, biologically, geologically and structurally: once lost it is almost impossible to replace artificially and it accumulates naturally very slowly.

There are many ways to damage the soil:

Deliberate removal	Depletion	Contamination
Strip mining Landscaping Construction Depletion	<i>Nutrient</i> Farming Forestry	Metals Organics ⁶
	<i>Physical</i> Erosion	

All of these forms of damage can impact the ability of the soil to support plant life and so to partake in the life support functions of the planet.

3. Water

Water is an obvious resource to identify for sustaining. There is good awareness of the need for plentiful amounts of clean water. There is a lesser awareness, however, of how water is made available, the necessary infrastructure and costs and how easily water resources may be wasted or lost.

Water is an essential part of life. All known life is based on a series of enzymatic⁷ reactions in an aqueous⁸ environment. Some forms of life are more adept at surviving in low water environments and a range of adaptations has evolved to deal with environments where water is present sporadically. In all cases water is an essential consideration.

⁶ materials such as petroleum and PCBs

⁷ enzymes are proteins which facilitate chemical reactions within living cells

⁸ water based

Mankind is heavily dependent on water availability. Sweating as a heat control mechanism uses large amounts of water and so in high temperatures requires ready access to sources of water. Many warm places are however often lacking in readily available water sources and so are more inimical to human existence.

One of the major impacts on water availability is industry. Many industries use large quantities of water in either processing or finishing. Water is a ubiquitous solvent and often used as a coolant or to wash away waste from workplaces. Such waste water has historically been discharged into the local water environment, often untreated. This of course places a heavy demand on the environment to clean the contaminants from the water, a task it may not be up to. As such, water courses in heavily industrialised areas have traditionally become devoid of wildlife and the watercourse itself a source of contamination for adjoining land and water environments. In areas of the UK where mining and metal working were prevalent, e.g. the Clyde Valley in Scotland, rivers became contaminated with metals and lost their ability to host wildlife such as salmon and otters.

More dilute forms of pollution have also proved to be a problem. Nitrates and phosphates from

Water Facts

Some 1.1 billion people, or 18 per cent of the world's population, lack access to safe drinking water, and over 2.4 billion people lack access to adequate sanitation. More than 2.2 million people in developing countries, most of them children, die each year from diseases associated with lack of access to safe drinking water, inadequate sanitation and poor hygiene.

Although 70 per cent of the world's surface is covered by water, only 2.5 per cent of the water is freshwater, nearly 70 per cent of which is frozen in ice caps. Most of the remainder is present as soil moisture, or lies in deep underground aquifers as inaccessible groundwater. Less than 1 per cent of the world's freshwater resources is accessible for human use.

Areas of water scarcity and stress are increasing, particularly in North Africa and West Asia. Over the next two decades, it is expected that the world will need 17 per cent more water to grow food for increasing populations in developing countries, and that total water use will increase by 40 per cent.

One third of the countries in water-stressed regions could face severe water shortages in this century, and by 2025, two-thirds of the world's population is likely to live in countries with moderate or severe water shortages.

Mountains provide freshwater for half of the world's people, yet mountain ecosystems are threatened by glacial melting, deforestation and unsustainable land practices.

Source: UN Summit Factsheets

http://www.johannesburgsummit.org/html/media_info/factsheets.html

agricultural activity encourage problems such as eutrophication⁹ and render water unsuitable for consumption. This means that water companies utilising such sources have to spend more time and money treating the water before distributing to the human population than would otherwise be the case. More serious contamination may result from agricultural use of pesticides and herbicides.

Marine water is often not considered when discussing water pollution as it is not readily usable for drinking or agricultural purposes. However, a large proportion of the plant and animal life, including primary producers, lives in the marine environment. There is also the problem that the marine environment is so large that it was probably perceived that 'dilute and disperse' strategies of waste disposal would be best, even over the long term. It is now apparent that marine ecosystems can be damaged and that such damage can have knock-on effects for human populations.

Water resources are not simply a series of reservoirs and pipes but include rivers, streams and groundwater reserves. Management of water resources requires a holistic view of how the various waterways of the earth interact and recycle themselves.

4. Biodiversity

It is often difficult to work up large amounts of enthusiasm for species loss, especially if the species involved are insects or less attractive members of the tree of life. More 'flagship' animal species like tigers, pandas and whales can garner public support and money to allow conservation work to be carried out and legislation to be passed.

The loss of a species of beetle, however, does not often cause public outcry and may often not even be noticed: indeed the species may not even have been classified in the first place. The delay of construction projects because of, for example, a pool that spawns a rare newt is more often relegated to the "amusing article" part of newspapers. It is understandably difficult to comprehend how human life and existence on the planet can be tied to animal or plant species far removed from those we consider pleasing (tigers) or fundamental (agricultural crops).

Biodiversity is, however, a complex subject and the decline of biodiversity may potentially lead to the failure of ecosystems necessary for the continuation of human life on earth. Knowledge of the Earth's biodiversity is incomplete and so the function of the

⁹ **Eutrophication:** The accumulation of nutrients, particularly phosphates (from sewage and detergents) and nitrates (from agricultural drainage), in a river or lake. This nutrient enrichment accelerates the growth of all the plants but particularly that of aquatic algae and cyanobacteria. Their rapid growth can block waterways and interfere with drinking-water supplies. In summer, vast population increases in the algae (a phenomenon known as algal bloom) may create a dense green mat over the water. This may prevent light reaching other plants, which then die. The rapid growth of algae and the mass of decomposing plant material eventually use up all of the oxygen in the water. This leads to the eventual death of the algae themselves and proliferation of bacteria which do not require oxygen, and produce hydrogen sulphide, a toxic gas. This smells of 'bad eggs' and kills most animal life in the water.

various species also remains incomplete as evidenced by the failure of Biosphere II to be capable of independent function over the required period of time.

Even if the risk of removing a vital part of the ecosystem is viewed as too remote to be of concern, the potential of gaining knowledge from plant and animal species should be too obvious to risk:

...the maize species *Zea diploperennis*, a wild relative of corn discovered in the 1970's by a Mexican college student in the west central state of Jalisco, south of Guadalajara. The new species is resistant to diseases and unique among living forms of maize in possessing perennial growth. Its genes, if transferred into domestic corn (*Zea mays*), could boost domestic production around the world by billions of dollars. The Jalisco maize was found just in time, however. Occupying no more than 10 hectares (25 acres) of mountain land, it was only a week away from extinction by fire and machete.¹⁰

Biodiversity Facts

Human activity has degraded more than half of the world's coastal ecosystems. For Europe, the figure is 80 per cent and for Asia, 70 per cent.

About 80 per cent of marine pollution comes from land-based sources. In developing countries, more than 90 per cent of sewage and 70 per cent of industrial wastes are dumped untreated into surface waters.

Fisheries provide direct and indirect livelihoods for some 400 million people. More than a quarter of the world's fisheries are over-utilized and half are exploited at full capacity. Overall, 75 per cent of the world's fisheries require immediate steps to freeze or reduce fishing to ensure a future supply of fish.

Almost a quarter of the world's coral reefs have been completely destroyed, and another 20 to 30 per cent are threatened with destruction within the next 10 years. Coral reefs are a crucial element in the food chain of the oceans.

More than 11,000 species are listed as threatened with extinction and more than 800 species have already become extinct, mostly due to the loss or degradation of their habitats. Another 5,000 species are potentially threatened unless major efforts are taken to protect them.

Source: *UN Summit Factsheets*

http://www.johannesburgsummit.org/html/media_info/factsheets.html

The removal of species may also have more indirect effects. It has been shown that prairie grasslands subject to drought or other environmental stresses suffer less and recover better if there is a greater diversity of plants present in the grassland. By lowering diversity there is a potential for increasing the impact of climate fluctuations and extreme weather events.

Species already well known to mankind have recently provided clues to potential anti-bacterials that may prove of benefit.

The provision of food may also, in a changing ecosystem, rely on biodiversity.

¹⁰ Edward O. Wilson, *Diversity of Life*, The Penguin Press (1993)

Perhaps 30,000 species of plants have edible parts, and throughout history a total of 7,000 kinds have been grown or collected as food but, of the latter, 20 species provide 90 percent of the world's food and just three – wheat, maize and rice – supply more than half. This thin cushion of diversity is biased toward cooler climates, and in most parts of the world it is sown in monocultures sensitive to disease and attacks from insects and nematode worms.¹¹

Biodiversity may have larger and more long lasting impacts on the sustainability of the planet than might initially be imagined. The fundamental basis of evolution for populations, and their ability to adapt to new environments, is variability. It is not difficult to surmise, therefore, that by reducing variability of an ecosystem the ability of that ecosystem to survive may also be reduced. Once species are lost it is difficult to see how they might be replaced. Though projects to record the genetic blueprints of species are under way, many species are being lost before ever being officially identified and therefore have no chance of ever being recorded.

II Development

A. The need to develop

15% of the world's population lives on 80% of its income (dollar income). As the President of the World Bank has pointed out, for too long the world has accepted this fact: that a wall separates the rich world and the poor world; we have seen as normal 'a world where a woman dies in childbirth every minute, and where violence, disenfranchisement, and inequality are seen as problems of poor, weak countries and not our own'.¹²

The full name of the 1992 Rio Earth Summit was the UN Conference on Environment and Development (UNCED). Despite this, sustainability has been seen as environmentalism in another guise, unembraced by the southern countries who consider that developed nations have paid too little attention to the chapters of Agenda 21 (the Rio sustainable development action plan) on poverty, shelter and livelihoods. This may partly have been because there was no legally-binding agreement made at Rio concerning sustainability, unlike climate change or biodiversity. But it is also undoubtedly because of a difference in past priorities. A right to develop is seen as crucial by non-industrialised countries.

Indeed, the UK's environmental strategy of the early 1990s, at around the time of UNCED and as set out in the *This Common Inheritance* series of white papers¹³, included

¹¹ Edward O. Wilson, *Diversity of Life*, The Penguin Press (1993)

¹² *World Development Indicators 2002*, World Bank
<http://www.worldbank.org/data/wdi2002/>

¹³ Starting with: *This Common Inheritance, Britain's Environmental Strategy*. Cm 1200, 1990

a definition of sustainable development that today we see as very confined to 'environmental' issues. Indeed one could argue that it did not encompass 'development', at least for developing countries, at all:

Sustainable development means living on the earth's income rather than eroding its capital. It means keeping the consumption of renewable natural resources within the limits of their replenishment. It means handing down to successive generations not only man-made wealth, but also natural wealth, such as clean and adequate water supplies, good arable land, a wealth of wildlife, and ample forests.¹⁴

This shortcoming was recognised by the UK government in its preparations for the World Summit on Sustainable Development (WSSD):

The Rio Summit is now largely remembered as an environmental summit, hence its label as the 'Earth Summit'. This is mainly because a number of the high profile agreements which emerged were largely environment-focused, for instance climate change, biodiversity and forests. The social and economic issues which were also deliberated and negotiated into Agenda 21 have received a lower profile. However, developing countries are now insisting that these issues be given a high profile on the agenda. This message has been taken on board by the developed nations who recognise that the political momentum required to further the Rio principles as well as the Millennium Development Goals [...] cannot be generated without engagement from the developing world.

18. With this in mind, the UN has billed the Johannesburg Summit as a 'sustainable development' summit and is using the strap-line 'People, Planet, Prosperity' to reflect this. The Rt Hon. Clare Short MP, Secretary of State for International Development, was very clear in her evidence to us that she considers Johannesburg to be the first true sustainable development summit. She told us that there was a "real opportunity" at WSSD to move away from the "very northern-dominated green agenda" which she felt was almost anti-development. Both the DPM and Mrs Beckett stressed to us the need for the Summit to concentrate on areas where it could make a real and practical difference and address sustainable development in its fullest sense". The DPM made it clear that the UK was seeking to ensure that practical objectives such as the eradication of poverty and access to clean water dominated the Summit.¹⁵

'Sustainable development' is now universally recognised as embracing social, environmental and economic needs. The UK's definition has moved on too. By the end of the decade that began with Rio, economic growth was explicitly included in the UK's sustainable development strategy;

¹⁴ *This Common Inheritance, Britain's Environmental Strategy*. Cm 1200, 1990

¹⁵ *UK Preparations for the World Summit on Sustainable Development*, Environmental Audit Select Committee Third Report 2001-2002 HC 616-I 26 March 2002

Although the idea is simple, the task is substantial. It means meeting four objectives at the same time, in the UK and the world as a whole:

- social progress which recognises the needs of everyone;
- effective protection of the environment;
- prudent use of natural resources; and
- maintenance of high and stable levels of economic growth and employment.¹⁶

Development has occurred. But it has been patchy, and not extensive enough, as the 2001 report of the United Nations high-level panel on Financing for Development, the Zedillo report¹⁷, pointed out. The world remains polarised between the haves and have-nots, and Africa remains a burning concern:

The world has seen faster human and economic development during the past half century than during any previous comparable period in history. Almost everywhere, literacy rates are up, infant mortality is down, and people are living longer lives.

Much as there is to celebrate, there is more to deplore. Almost half of the world's people are still living in abject poverty. One fifth of the world's population, or 1.2 billion people, live on less than one dollar a day. In the low-income countries, with their 2.5 billion people, more than 100 babies out of every 1,000 die, compared to just six per 1,000 in the high-income countries. And in low-income countries, four out of ten people still cannot read or write. World income distribution is becoming more unequal. Nowadays, 80 per cent of the global population lives on less than 20 per cent of the global income.

The most painful international story of the past three decades has been the impoverishment of countries that are home to half a billion people, most of them in sub-Saharan Africa. Nowhere is a global commitment to poverty reduction needed more than in this region. Sub-Saharan Africa has the largest proportion of people living on less than one dollar a day, and indeed, its people are almost as poor as they were 20 years ago.

The successful development stories of our era are essentially the result of globalization, powered both by the explicit political decisions of States and by unprecedented technological progress. The market economy and globalization at large present tremendous opportunities. But too many people in too many countries lack the freedom to take advantage of these opportunities, and they are consequently left on the sidelines of the globalization process. People lack freedom when they lack food, education, training, health, basic human and political rights, security, elementary infrastructure and employment opportunities. Provide people with these elements — through economic growth and through social policies that equalize opportunities among individuals, communities and nations — and you will see them empowered to take up new opportunities and improve their lives.

¹⁶ *A better quality of life A strategy for sustainable development for the UK*, Cm 4345, May 1999

¹⁷ 26 June 2001 General Assembly 55th session at <http://www.un.org/esa/ffd/a55-1000.pdf>

Sadly, however, increasing polarization between the haves and have-nots has become a feature of our world. Reversing this shameful trend is the pre-eminent moral and humanitarian challenge of our age. For people in the rich world, elementary self-interest is also at stake. In the global village, someone else's poverty very soon becomes one's own problem: lack of markets for one's products, illegal immigration, pollution, contagious disease, insecurity, fanaticism, terrorism.

B. The nature of development

There has been a continuing controversy about the nature of development in non-industrialised countries. For example, the Export Credits Guarantee Department (ECGD), which provides guarantees and insurance to UK exporters and business investments abroad, has been criticised for underwriting fossil fuel-fired power plant projects in developing countries. Projects guaranteed by ECGD since 1997 (sometimes in conjunction with other export credit agencies and finance providers) could account for an annual 13.3m tonnes of carbon emissions¹⁸, or half of Britain's pledged reductions in greenhouse gases.¹⁹

The ECGD, following its 1999-2000 mission and status review, now has a mission statement²⁰ which makes taking into account Government policies (on, inter alia, sustainable development) an aim and objective of the ECGD. The mission statement also said the ECGD would operate according to a statement of business principles published in December 2000. The first paragraph states:

We will promote a responsible approach to business and will ensure our activities take into account the Government's international policies including those on sustainable development, environment, human rights, good governance and trade.²¹

More specifically, policies and objectives relating to human rights and sustainable development are as follows;

Sustainable Development & Human Rights

Objectives

- ECGD will, when considering support, look not only at the payment risks but also at the underlying quality of the project, including its environmental, social and human rights impacts.
- ECGD's approach in determining whether to support a project will be one of constructive engagement with a view to achieving necessary improvements in the project's impacts.

¹⁸ HC Deb 2 July 2002 c277W

¹⁹ "Global warming policy attacked", *Financial Times*, 13 July 2002

²⁰ <http://www.ecgd.gov.uk/graphic/WhoIsECGD/mission.asp>

²¹ <http://www.ecgd.gov.uk/graphic/debtdev/BusPrinStatement.asp>

- ECGD will press for reform on sustainable development and human rights issues in relation to export credits.

Policies

ECGD will:

- not support any exports (including those involving defence sales) which require an export licence* unless such licence has been granted by the relevant authority.
- increase its awareness and understanding of project impacts including human rights issues.
- screen applications for cover to identify and thereafter analyse, any adverse or beneficial environmental, social or human rights aspects of relevant projects.
- determine the acceptability of applications for cover by taking account of appropriate external standards using its in-house expertise after consultation where necessary with other specialists.
- establish a mechanism for consulting other interested Government departments on cases with significant project impacts.
- press for the establishment of a multilateral framework of common guidelines for assessing environmental and social issues related to project implementation.

* (UK export licences will not be issued if the arguments for doing so are outweighed by the need to comply with the government's international obligations and commitments or other considerations as described in the published criteria [ref HC Deb 26.10.00 c199-203w]. All such licence applications are circulated for comment to those government departments with appropriate policy responsibilities. ECGD plays no part in this process.)

The World Bank identifies the need to strike a balance; to find the ‘right type’ of development:

Ensure environmental sustainability

The environment provides goods and services that sustain human development—so we must ensure that development sustains the environment. Growing populations are putting greater pressure on land and natural resources. In many places freshwater is already becoming scarce. Forests are disappearing. Soils are being degraded and fisheries overexploited. Poor people are disproportionately affected. Fortunately, good policies and economic growth, which work to improve people’s lives, can also work to improve the environment.

Progress is possible

Greater understanding of how environmental assets and social assets—including markets—work together points the way to truly sustainable development. Poor countries do not need to repeat the mistakes of rich countries. In some high-income countries the abandonment of farmlands has allowed forests to recover. But the world lost more than

900,000 square kilometers of forest in the past decade. And the damage from losing whole species of plants and animals can never be undone.²²

The EU, in its agenda for the WSSD, addressed in more detail what development might entail. It specifically addressed energy projects, for instance, although ‘more efficient’ fossil fuel plants will still predominate over renewable sources:

To enhance the use of cleaner, more efficient fossil fuel technologies, to improve energy efficiency and to increase the share of renewable energy sources to at least 15% of primary energy supply by 2010. The provision of affordable, sustainable energy services will have a major impact on poverty, health, economic and social development. The WSSD should adopt an action plan to achieve this goal. The EU is preparing an Energy Initiative to develop partnerships with interested developing countries to identify their energy needs and ways to meet these needs, by making use of EU development co-operation programmes as well as through the involvement of financial institutions and the private sector. The EU has already allocated 700 m Euro for 2003 and is ready to increase this figure for the following years within the context of partners poverty reduction strategies.

[...]

To develop a ten-year work programme to accelerate the shift towards sustainable consumption and production. Industrialised countries should take the lead in changing their unsustainable behaviour towards more resource efficient production processes and lifestyles. Life-cycle approaches, Eco-labelling and environmental impact assessments are useful tools in that regard. Appropriate means should be made available to help developing countries to move towards the same objective.

To halt and reverse by 2015 the current loss of natural resources/biodiversity and to manage natural resources in a sustainable and integrated manner. This clear global objective should lead to incentives for local communities, in particular in developing countries, to benefit from the conservation and sustainable use of their rich variety of natural resources. The EU is in the process of reforming its fisheries policy, with the aim of reducing fleets and total catch, and calls on other countries to do the same in order to restore stocks to sustainable levels at the latest by 2015.²³

C. Part of a larger, mainstream process

The WSSD at Johannesburg comes soon after two other major international gatherings, and in contrast to UNCED, which was very much a stand-alone environmental summit, the WSSD is part of a far more mainstream process. The Secretary of State for International Development has confirmed that the Government does not view the WSSD in isolation:

²² *World Development Indicators 2002*, World Bank
<http://www.worldbank.org/data/wdi2002/>

²³ *The EU agenda for the World Summit on Sustainable Development* Brussels, 1 July 2002
http://europa.eu.int/comm/environment/wssd/documents/agenda_en.pdf

Clare Short: The Government's strategic objective for the world summit is to make globalisation work for sustainable development, especially for the poorest. We see the summit as part of a broader process that includes the Millennium Declaration, the WTO Doha Development Agenda and the agreement reached at the Financing for Development Conference in Monterrey.²⁴

At Doha in November 2001 the WTO launched a new trade round. Trade liberalisation and market access for developing countries, and particularly a reduction in western agricultural subsidies, has the potential to deliver far more in monetary terms than official development assistance. Indeed, the new trade round is termed the 'Doha Development Agenda' by the UK, EU and others, which indicates an intended emphasis on development, not just trade liberalisation.

At Monterrey in March 2002 the UN conference on financing for development²⁵ discussed means of providing more financial resources to developing countries, and at the conference both the EU and US made substantial extra commitments. The US announced it would increase its development assistance by \$5 billion more than it had planned to spend in the next three budget years until its budget was doubled (it spends \$10bn a year at present). The EU said it would strive towards an average ratio of 0.39% for official development assistance (ODA) as a percentage of gross national income (GNI) by 2006, which would be an additional \$7 billion by 2006.²⁶

The UK has pledged, since Monterrey, to raise the UK's aid budget by an average of 8% a year above inflation, spending £4.9 billion in ODA by 2005/06 to give an ODA/GNI ratio of 0.40%, meeting the EU's Monterrey promise of 0.39%. It will send 90% of its bilateral aid to the poorest countries of the world by 2005/06.²⁷

By 2006 then, ODA should have risen by at least \$17bn, to perhaps around \$70bn although it is hard to be precise since various other countries have announced targets or timetables independent of Monterrey. Yet even with these promises, development assistance will fall far short of that needed. The Zedillo report²⁸ costed this at an extra \$50 billion in official development assistance a year, every year, to meet the Millennium Development Goals, and this agrees with other official estimates.

These goals were affirmed at the Millennium Summit²⁹ in New York in 2000 and first adopted by the OECD in 1996.³⁰ Each is to be achieved by 2015 compared to 1990 levels where relevant and they are to:

²⁴ HC Deb 24 July 2002 c1133w

²⁵ Library research paper 02/16, *Financing for Development*, 15 March 2002

²⁶ <http://www.un.org/esa/ffd/>

²⁷ *2002 Spending Review* Cm 5570, HM Treasury July 2002

²⁸ Op. cit.

²⁹ UN General Assembly 55th session see <http://www.un.org/millennium/> for details

- 1. Eradicate extreme poverty and hunger**
 - Halve the proportion of people with less than one dollar a day (living in extreme poverty).
 - Halve the proportion of people who suffer from hunger.
- 2. Achieve universal primary education**
 - Ensure that boys and girls alike complete primary schooling.
- 3. Promote gender equality and empower women**
 - Eliminate gender disparity at all levels of education.
- 4. Reduce child mortality**
 - Reduce by two thirds the under-five mortality rate.
- 5. Improve maternal health**
 - Reduce by three quarters the maternal mortality ratio.
- 6. Combat HIV/AIDS, malaria and other diseases**
 - Reverse the spread of HIV/AIDS.
- 7. Ensure environmental sustainability**
 - Integrate sustainable development into country policies and reverse loss of environmental resources.
 - Halve the proportion of people without access to potable water.
 - Significantly improve the lives of at least 100 million slum dwellers.
- 8. Develop a global partnership for development**
 - Raise official development assistance.
 - Expand market access.
 - Encourage debt sustainability.

The goals comprise 18 targets and 48 indicators. The World Bank's annual publication *World Development Indicators*³¹ (WDI) reports progress towards meeting these targets, which provide some very necessary yardsticks:

The goals focus the efforts of the world community on achieving significant, measurable improvements in people's lives. They establish yardsticks for measuring results, not just for developing countries but for rich countries that help to fund development programs and for the multilateral institutions that help countries implement them. The first seven goals are mutually reinforcing and are directed at reducing poverty in all its forms. The last goal—global partnership for development—is about the means to achieve the first seven. Many of the poorest countries will need additional assistance and must look to the rich countries to provide it. Countries that are poor and heavily indebted will need further help in reducing their debt burdens. And all countries will benefit if trade barriers are lowered, allowing a freer exchange of goods and services.

For the poorest countries many of the goals seem far out of reach. Even in better—off countries there may be regions or groups that lag behind. So countries need to set their own goals and work to ensure that poor people are included in the benefits of development.

³⁰ DAC Journal Development Co-operation Report 2001

³¹ <http://www.worldbank.org/data/wdi2002/index.htm>

According to the United Nations Development Programme (UNDP) the ability of countries to set and aim for their own goals relies on the process of 'capacity building'. UNDP has said that this is not about 'imposing outside models of development' but enhancing the ability of local communities to take charge of their own sustainable development. An initiative called Capacity 2015, which will be part of the follow-up to the WSSD, will build up UNDP's capacity building programmes in developing countries to promote partnerships and ensure that sustainable development happens at a local level.³²

The 2002 WDI report, the 25th edition of the publication, said that there had been some good news regarding the goals. For example, life expectancy at birth in developing countries has increased by 20 years, over the past 40 years. Adult illiteracy in the developing world has been cut nearly in half over the past 30 years. The number of people living on less than \$1 a day has fallen by 200 million, over the past 20 years. But the World Bank still concludes that 'too many countries are falling short of the goals or lack the data to monitor progress. Now is the time to take actions to accelerate progress, not 5 or 10 years from now'.

The latest UNDP *Human Development Report 2002* confirms that 'at current trends a significant portion of the world's states are unlikely to achieve the Millennium Development Goals, including the overarching target of halving extreme poverty by 2015. Many countries are poorer than 10, 20 and in some cases 30 years ago.'³³

The European Union is keen to build on the momentum it says was developed at Doha and Monterrey to help deliver the Millennium Goals, after Johannesburg. Its agenda for the WSSD showed how sustainable development is now inextricably linked with the processes of trade liberalisation, increasing globalisation, and the need for development finance:

What does the EU want from the WSSD?

The EU wants the WSSD to take - after Doha and Monterrey - further steps towards the implementation of the Millennium Development Goals, and to build upon them in areas such as sanitation and energy. The WSSD should adopt quantifiable targets and timetables for their implementation. There should be mechanisms for monitoring progress towards these targets. One of the implementing mechanisms could be well-developed partnerships between governments, the private sector and civil society. There should however be a clear link between the political goals and the partnerships decided by the WSSD so that everyone can see how the political goals are being achieved. The EU wants the WSSD to send a clear political message on the need to make

³² *New UNDP Drive to Support Developing Country Efforts to Meet 2015 Millennium Development Goals*
Bali, 6 June 2002

³³ <http://www.undp.org/hdr2002/>

globalisation more sustainable for all and to agree on measures aimed at promoting this goal.

Specific commitments from the EU include an EU Water Initiative, an Energy Initiative and targeting more aid towards improving health outcomes, and like the UK it stressed that Doha and Monterrey have much to deliver in reducing poverty through growth:

To agree on a positive agenda for globalisation, finance and trade. Important steps to ensure that globalisation benefit all have recently been taken through the Doha Development Agenda and the Monterrey Consensus. The achievements of these Conferences should not be put into question in Johannesburg but we should identify ways and means to build upon them. As an example in Johannesburg, the EU is putting forward a number of positive and supportive measures on trade and investment, outside the scope of Doha Development Agenda and the Monterrey Consensus, which specifically would contribute to sustainable development in developing countries.³⁴

In advance of the WSSD, work at the final WSSD Bali PrepCom on drafting an implementation plan for Johannesburg was augmented by a session in New York aimed at reconciling outstanding differences between delegations:

In particular, consensus appeared to emerge on some key issues, such as the interpretation of the Rio Principles and on how to articulate the progress that was achieved at the World Trade Organization meeting in Doha last November, and at the International Conference on Financing for Development in Monterrey last March. Differences were also narrowed on issues concerning the establishment of new targets and timetables, particularly on setting a target for reducing the number of people who lack proper sanitation facilities.³⁵

III Sustainable Development

Sustainable development is essentially the management of the ecological footprint of the human race as it develops and grows.

Each person, by their very existence, impacts the environment. If sustainability is to be achieved the total impact of the human race over a specific time period must be less than the ability of the Earth to recover from that impact. An individual's impact might occur through direct action, such as chopping down a tree for firewood, or indirect action, such as purchasing non-sustainably grown hardwood doors. Implementation of sustainable development can address either direct or indirect impacts.

³⁴ *The EU agenda for the World Summit on Sustainable Development Brussels*, 1 July 2002
http://europa.eu.int/comm/environment/wssd/documents/agenda_en.pdf

³⁵ 18 July 2002 *Agreement on Johannesburg outcome seen as within reach following South African-led discussions*. http://www.johannesburgsummit.org/html/whats_new/feature_story17.html

A recent report³⁶ by the World Wildlife Fund estimated that if the population of the Earth were all to have the same lifestyle as the West currently possesses then the footprint would cover almost three planet Earths. That is, the resources of three planets would be required to sustain that population.

Earthscan published the latest edition of the Global Environmental Outlook³⁷ in May 2002 which presents a range of environmental data, compiled for the UN, back to 1972 and projected forward on current trends to 2032. Some highlights of the report were reported in *The Guardian*:

The Bad News

- In 30 years 70% of the Earth's surface will be suffering severe impacts of man's activities, destroying the natural world with roads, mining and cities.
- 1,183 species of birds, around 12% of the world's total and 1,130 species of mammals, about a quarter, are faced with extinction.
- One-third of the world's fish stocks are depleted or overexploited.
- Concentrations of carbon dioxide in the atmosphere could double by 2050. The number of people affected by weather related disasters has risen from 147 million a year to 211 million in ten years.
- There are 2.2 billion more mouths to feed than in 1972 and there will be another 2 billion in 30 years.
- Already 40% of the world is short of fresh water, in 30 years this will rise to 50%. In west Asia this rises to 90%.
- At least 15% of the Earth's surface is already degraded by human activities.
- Overgrazing causes 35% of soil degradation, deforestation 30% and agriculture 27%.
- More than a billion urban dwellers, mostly in Africa, Asia and Latin America live in slums. Another billion people will be living in cities by 2010.
- Half the world's rivers are seriously depleted and polluted. About 60% of the 227 biggest are disrupted by dams and other engineering works.
- There are 4 billion cases of diarrhoea causing 2.2 million deaths a year.
- Two billion people are at risk from malaria and two million die a year.
- Contaminated shellfish causes an estimated 2.5 million cases of infectious hepatitis annually, resulting in 25,000 deaths.
- A fifth of the world's population is responsible for 90% of consumption. Two thirds of the population, about 4 billion people, live on less than \$2 a day.

And the Good

- The hole in the ozone layer is being repaired because of an 85% reduction in the use of harmful chemicals in 114 countries.

³⁶ Living Planet Report 2002 <http://www.panda.org/livingplanet/lpr02/>

³⁷ <http://www.unep.org/geo/geo3/>

- The number of people with improved water supplies increased from 4.1 to 4.9 billion in the last 10 years.
- About 10% of the Earth, 12.18 million hectares, is in protected areas like national parks, five times as much as 30 years ago.
- A moratorium on commercial whaling since 1986 is allowing species to recover.
- The amount of water abstracted for public supply in western Europe fell by 10% in 10 years because of efficient use.
- Emissions of most air pollutants in Europe have declined since the early 80's.³⁸

These data were supplemented by a report published in the *Proceedings of the National Academy of Sciences*³⁹ which reported that mankind, in 1999, was using 120% of what the earth can sustainably provide. This was an increase on 70% usage of resources in 1961 and 100% in the 1970's. There are those, however, who dispute claims of impending doom such as the Scientific Alliance⁴⁰ and a recent statement from the Danish Environmental Assessment Institute (headed by Bjorn Lomborg) directly disputed the WWF report.⁴¹ The issue may be more definitively addressed in a four year assessment to be carried out by the Millennium Ecosystem Assessment⁴² which will involve more than 2,000 scientists to survey the world's ecosystems much like the Intergovernmental Panel on Climate Change (IPCC) assessed the problems posed by climate change.⁴³

The commitment made at the 1992 Rio Earth Summit to become more sustainable, for many in the developed world was largely tied up with Agenda 21⁴⁴ and the slogan 'Think Global, Act Local'. The Local Agenda 21 (LA21) programme hoped to introduce the principles of sustainability into local communities and to raise awareness of the concept in societies that were becoming ever more tied to disposable goods.

There is a need for people to accept that their actions have global consequences. That despite small changes in behaviour having little perceptible or immediate local effect, in conjunction with similar changes by many others, the global consequences could be extremely important. Government has a difficulty in that it has to promote behavioural changes that compete against the drive of commerce and to engage public interest and activism in an organised manner. The LA21 programme⁴⁵ is an effort to ensure that the

³⁸ "The way we will live in 2032", *The Guardian*, 23 May 2002

³⁹ Mathis Wackernagel et al, "Tracking the ecological overshoot of the human economy", *Proc. Natl. Acad. Sci. USA*, Vol. 99, Issue 14, 9266-9271, 9 July 2002

<http://www.pnas.org/cgi/content/abstract/142033699v1>

⁴⁰ <http://www.scientific-alliance.com/>

⁴¹ http://www.imv.dk/include/downloadfile.asp?file_id={440A67A2-D769-45D8-84ED-0FF60D04EFF3}

⁴² <http://www.millenniumassessment.org>

⁴³ "The state of the planet", *Nature*, 9 May 2002

⁴⁴ <http://www.un.org/esa/sustdev/agenda21text.htm>

⁴⁵ <http://www.un.org/esa/sustdev/agenda21.htm>

public can feed into sustainability issues and that there is a watching programme to influence local government plans towards more sustainable routes.

The following issues were identified in Agenda 21 as requiring attention in moving towards a more sustainable world:⁴⁶

<ul style="list-style-type: none"> • Combating Poverty • Changing Consumption Patterns • Demographic Dynamics And Sustainability • Protection And Promotion Of Human Health • Promoting Sustainable Human Settlement Development • Integrating Environment And Development In Decision-making • Protection Of The Atmosphere • Integrated Approach To The Planning And Management Of Land Resources • Combating Deforestation • Managing Fragile Ecosystems: Combating Desertification And Drought • Managing Fragile Ecosystems: Sustainable Mountain Development • Promoting Sustainable Agriculture And Rural Development • Conservation Of Biological Diversity • Environmentally Sound Management Of Biotechnology • Protection Of The Oceans, All Kinds Of Seas, Including Enclosed And Semi-enclosed Seas And Coastal Areas And The Protection Rational Use And Development Of Their Living Resources • Protection Of The Quality And Supply Of Freshwater Resources: Application Of Integrated Approaches To The Development, Management And Use Of Water Resources • Environmentally Sound Management Of Toxic Chemicals Including Prevention Of Illegal International Traffic In Toxic And Dangerous Products 	<ul style="list-style-type: none"> • Environmentally Sound Management Of Hazardous Wastes Including Prevention Of Illegal International Traffic In Hazardous Wastes • Environmentally Sound Management Of Solid Wastes And Sewage-related Issues • Safe And Environmentally Sound Management Of Radioactive Wastes • Preamble To Section Iii • Global Action For Women Towards Sustainable And Equitable Development • Children And Youth In Sustainable Development • Recognising And Strengthening The Role Of Indigenous People And Their Communities • Strengthening The Role Of Non-governmental Organizations: Partners For Sustainable Development • Local Authorities' Initiatives In Support Of Agenda 21 • Strengthening The Role Of Workers And Their Trade Unions • Strengthening The Role Of Business And Industry • Scientific And Technological Community • Strengthening The Role Of Farmers • Financial Resources And Mechanisms • Transfer Of Environmentally Sound Technology, Cooperation And Capacity-building • Science For Sustainable Development • Promoting Education, Public Awareness And Training • National Mechanisms And International Co-operation For Capacity-building • International Institutional Arrangements • International Legal Instruments And Mechanisms • Information For Decision-making
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Many of these topics would appear to be focussed on the developing world. It is easy to dismiss action taken in the developed world as being irrelevant to problems in developing nations. Even casual action by the citizenry of the developed world such as a demand for coffee can skew the economies of developed nations that are thus 'encouraged' to grow these unsuitable, non-food crops that bring cash to the local economy. This should not

⁴⁶ <http://www.un.org/esa/sustdev/agenda21text.htm>

however be used to defend protectionist policies to restrict the inflow of such crops from developing nations where hard foreign currency may otherwise be difficult to attract.

Developing nations are unlikely to have sustainability concerns near the top of their priorities when there is an opportunity to improve their financial position and that of their populace. This is highlighted in cases such as the concerns over Brazil developing their infrastructure at the expense of the rainforest. Developed countries had no one looking over their shoulder commenting on the environmental depredations their development imposed.

John Gummer, at a UNED conference in January 2002, highlighted the need for development to be linked to sustainability:

Sustainable development is two words which need to be carried together. We cannot ask people who are impoverished to embrace sustainability without the promise of development.

The uptake of sustainable development depends on the dynamic between the developed nations and developing nations to be maintained. It would seem fair that developing nations be allowed to develop and acquire the lifestyle and advantages already accrued by the developed nations of the world. How they achieve this may depend on the attitude of developed nations towards such development and the threat it poses to their wealth.

On being presented with the Global Award for the Betterment of the World Environment, John Prescott summed up the problem and the need to realise that global problems were for everyone to address:

From Mumbai to Manchester we all face the same problems. Whatever our level of development, environmental degradation, social injustice, and poverty are always with us. We need to find new ways to tackle old problems through partnership, co-operation and exchange of information. We have a lot to learn from each other wherever we live. We need to recognise our common but differentiated responsibilities and our inter-dependence in an increasingly globalised world.⁴⁷

A. Defining Sustainable Development

Sustainable development and sustainability are often referred to as synonyms but in practice there are subtle differences. Sustainability is likely to focus strongly on sustaining the environment while sustainable development is more focussed on balancing sustainability with the promotion of development. It is possible to hinder or forget about

⁴⁷ Office of the Deputy Prime Minister Press Release, *Prescott – Think Globally, Act Locally*, 19 September 2002

the development of less developed nations due to concerns about environmental sustainability.

Indeed, this very concern about the environmental focus was one of the issues brought up during the recent Environmental Audit Select Committee report⁴⁸ into the sustainable development issue.⁴⁹

The UK objectives for the Summit were outlined in the Government's second annual review of progress towards sustainable development:

5.13 The UK's objectives are being developed through the Cabinet Committee set up by the Prime Minister (see paragraph 5.9 above). They are broadly in line with the priorities identified at the UNECE Regional Ministerial meeting, and with the set of issues proposed for discussion at Johannesburg in the UN Secretary-General's paper. The UK wants the Summit to cover all three pillars of Sustainable Development – economic, social and environmental – and to foster effective practical action by all countries and stakeholders in developed and developing countries. WSSD should mark a significant move towards greater prosperity and security for all, but offer more help for those who need it most.

5.14 Therefore, our strategic objective is to make globalisation work for sustainable development, especially for the poorest. At WSSD, the UK would like to build on other processes, including the Doha Development Agenda and Financing for Development, to focus the actions of governments, international institutions, business and civil society on delivering the sustainable development necessary to achieve the Millennium Development Goals, and other related international targets. We need to secure a new approach to the way in which we all act to tackle poverty and environmental degradation to deliver an improved quality of life for all. We also want to see positive messages on resource productivity and improved management of natural resources, and setting in place a framework for stimulating technical and social innovation to enable economic progress, with a view to reducing poverty, while respecting environmental limits.

5.15 Within these overarching objectives we want to see positive, concrete action to tackle sectoral problems related to energy, capacity building, freshwater and oceans. Priority should also be given to developing specific initiatives focussing on sustainable development in Africa, building on the New Partnership for African Development. In developing deliverable initiatives we place a strong emphasis on the importance of the involvement of civil society, including the Private Sector, NGOs and Local Authorities.

⁴⁸ Environmental Audit Select Committee Third Report, *UK Preparations for the World Summit on Sustainable Development*, 26 March 2002 HC 616-I

⁴⁹ <http://pubs1.tso.parliament.uk/pa/cm200102/cmselect/cmenvaud/616/61604.htm#a8>

5.16 As part of the UK preparations for WSSD, this Chapter will be updated for the Summit and will include more detailed information on Government and other stakeholder activity and provide an update on progress since Rio.⁵⁰

The concept of Sustainable Development was essentially introduced to the world at large at the Rio Earth Summit. As a concept it seems to be fairly simple until there is a need to define it, such as introducing the principle to legislative programmes. The concept has rarely been defined in legislation though one exception may be Section 1 of the *International Development Act 2002* in which 'Sustainable Development' is defined for the purposes of this section as:

any development that is, in the opinion of the Secretary of State, prudent having regard to the likelihood of its generating lasting benefits for the population of the country or countries in relation to which it is provided⁵¹

Although the explanatory notes⁵² state that the Act does not define sustainable development (nor poverty or welfare), several speakers referred to the above definition (and some commended it) during the Bill's passage through the Lords.⁵³ This will be the first time that a definition of sustainable development has reached the statute book although the section states that the definition is for this Act's purposes only.

Whilst most people believe they have a rough idea of what the term means, legislation requires working definitions rather than vague ideas. There have however been many attempts to define the concept. *The Earthscan Reader in Sustainable Development*, quoted below, outlines the search for a good definition:

According to Holmberg and Sandbrook (1992), 70 definitions are now current. Pearce et al (1989) include "A gallery of definitions" as an appendix to their book. The most widely quoted definition and effectively the official one is that of Brundtland (WCED, 1987) "[development that] meets the needs of the present without compromising the ability of future generations to meet their own needs". Many other definitions are variant of this, reflecting the disciplinary standpoint of the particular author - many of them say the same thing at much greater length. The apparently simple and clear Brundtland definition has caused heated discussion among theoreticians and practitioners of environment and development. To the authors' knowledge it has also launched a thousand student essays.

Clearly the Brundtland statement has a strong people-centred ethical stance, concentrating on the satisfaction of human needs (not human wants), rather than, for example, on protection of the environment in general, as WCS did, or on other species, as deep ecologist would. Redclift (1992) points out that the Brundtland

⁵⁰ <http://www.sustainable-development.gov.uk/ar2001/pdf/ar2001.pdf>

⁵¹ <http://www.hmso.gov.uk/acts/acts2002/20001--b.htm#1>

⁵² <http://www.hmso.gov.uk/acts/en/2002en01.htm>

⁵³ Library Research Paper 01/85, *International Development Bill*, Section V. C., 1 November 2001

Report does not specifically examine exactly what is meant by human need. Basic needs to ensure survival are obviously included - nutrition, health and shelter, but it is not clear how much more than survival is involved in "needs". The concern with balancing the interest of present and future generations, the intergenerational criterion, is an ethical issue. Many people consider that it is presumptuous to make assumptions about future human needs beyond the simple biological ones. In fact Brundtland is concerned also to secure intragenerational equity, in other words relative redistribution of resources toward the poor. Since the North is in general not interested in donating more than a token amount to the South, an improvement in their living conditions can be achieved only through economic growth in the South.

The rapid acceptance of the ideal of sustainable development is not surprising since it is interpretable in so many different ways. It fits nicely into political soundbites compared with its predecessor "ecodevelopment"; it is something with which everyone can agree, like "motherhood and apple pie" (Pearce et al, 1989, p. 1). But note the enigmatic quotation at the start of Pearce et al (1989) "Where are the lollipops in sustainable development? (Canadian politician 1988)". The European Union recognized a good slogan when it entitled its Fifth Environmental Action Plan, intended to run from 1994 to 2000, "Towards Sustainability". Both "sustainable" and "development" are rational and enlightened concepts. It is difficult to imagine that anyone, except out of perversity, could agree with the reverse. While no one would be likely to aim for the reverse - except as part of a war strategy (see below) - not everyone approves of the notion of sustainable development. Beckerman (1995, p. 1) regards it as a "catch phrase ... repeated parrot fashion by environmental policy makers" and on page 8 says that 'the value of the concept is vastly overrated'. He prefers the obtaining of the highest feasible welfare as a more appropriate aim for society and believes that economic growth is the best way of achieving this. Forget environment and development and go for growth. Surprisingly, many environmentalists hate the term "sustainable development" precisely because "it appears to license economic growth" (Holmberg and Sandbrook, 1992, p. 21). The acceptance of sustainable development as a basic aim for the world may also be explained by the perception, from the late 1950s, that the world is facing a meta crisis, including crises of development, environment and security.⁵⁴

References

- Beckerman W. (1995), *Small is Stupid: Blowing the Whistle on the Greys*, Duckworth, London.
- Holmberg J. and R. Sandbrook (1992), "Sustainable Development: What is to be Done?", in: J. Holmberg (ed), *Policies for a Small Planet*, Earthscan, London, pp 19-38.
- Pearce D., A. Markandaya and E. B. Barbier (1989), *Blueprint for a Green Economy*, Earthscan, London.

⁵⁴ Kirby J., O'Keefe P., Timberlaker L., "The Earthscan reader in sustainable development", London, Earthscan, 1995, p 371: Sustainable development: an introduction, pp. 1-14.
<http://dewey.rug.ac.be/Dome/kirby.html#defs>

The 1990 white paper *This Common Inheritance* set out the following working definition

The Government therefore supports the principle of sustainable development. This means living on the earth's income rather than eroding its capital. It means keeping the consumption of renewable natural resources within the limits of their replenishment. It means handing down to successive generations not only man made wealth (such as buildings, roads and railways) but also natural wealth such as clean and adequate water supplies, good arable land, a wealth of wildlife and ample forests.⁵⁵

In the introduction to the UK strategy for sustainable development⁵⁶ the then Secretary of State for the Environment, John Gummer, said

Year by year we need to revise and refine our policies so that our economy can grow in a way which does not cheat on our children.

The current Government picked up the sustainability challenge in its 1998 consultation paper, *Sustainable Development: Opportunities for Change*, for the purposes of a new UK strategy. Within the paper, it attempted to provide a definition of sustainability following closely on from the Brundtland definition:

6. Sustainable development is a very simple idea. It is about ensuring a better quality of life for everyone, now and for generations to come.

7. To achieve this, sustainable development is concerned with achieving economic growth, in the form of higher living standards, while protecting and where possible enhancing the environment · not just for its own sake but because a damaged environment will sooner or later hold back economic growth and lower the quality of life · and making sure that these economic and environmental benefits are available to everyone, not just to a privileged few.

8. There have been many attempts to produce formal definitions of sustainable development. The most widely used, particularly internationally, is the 'Brundtland' definition which refers to 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.

9. Perhaps more important than formal definitions, however, are the key objectives which underlie sustainable development. Our vision of sustainable development is based on four broad objectives.

⁵⁵ *This Common Inheritance* Cm 1200 p47 para 4.4

⁵⁶ *Sustainable Development, The UK Strategy*, January 1994, Cm 2426

Social progress which recognises the needs of everyone. It is not enough to focus on economic and environmental policies if whole groups in society, or parts of the country, are excluded. We have to reduce the harm to health caused by poverty, poor housing, unemployment and pollution. And our objective must be for everyone to live in a clean and safe environment, although that should not mean adopting policies which would prevent people from being able to afford the basic services they need. Nor should our needs be met by treating others elsewhere in the world unfairly.

Effective protection of the environment. This means acting to limit global environmental threats, such as climate change; to protect human health and safety from hazards such as poor air quality and toxic chemicals; and to protect things which people need or value, such as wildlife, landscapes, and historic buildings.

Prudent use of natural resources. This does not mean denying ourselves the use of non-renewable resources like oil and gas, but we do need to make sure that we use them efficiently and that alternatives are developed to replace them in due course. Renewable resources, such as water, should be used in ways that do not endanger the resource or cause serious damage or pollution.

Maintenance of high and stable levels of economic growth and employment, so that everyone in Britain can share in high living standards and greater job opportunities. Britain is a trading nation in a rapidly-changing world. For our country to prosper, our businesses must produce the high quality goods and services that consumers throughout the world want, at prices they are prepared to pay. To achieve that, we need a workforce that is equipped with the education and skills for the 21st century. And we need businesses ready to invest, and an infrastructure to support them.⁵⁷

Other organisations have also had to define their view of what sustainability means. The UN Food and Agriculture Organisation proposed the following:

"Sustainable development is the management and conservation of the natural resource base, and the orientation of technological and institutional change, in such a manner as to ensure the attainment and continued satisfaction of human needs for present and future generations. Such sustainable development (in the agricultural, fisheries and forestry sectors) conserves land, water, plant and animal genetic resources, is environmentally non-degrading, technically appropriate, economically viable and socially acceptable".⁵⁸

There are a range of definitions, all of which would appear to revolve around the Brundtland definition. It may be unsurprising therefore that in the absence of a explicit

⁵⁷ Sustainable Development: Opportunities for Change Consultation Paper on a Revised UK Strategy <http://www.sustainable-development.gov.uk/sustainable/consult1/index.htm>

⁵⁸ Report of FAO Council, 1988, <http://www.fao.org>

definition of sustainable development, implementation has been difficult to monitor and achieve.

B. Implementation of Sustainable Development

Putting principles of sustainability into practice can be difficult. To make good sustainability decisions requires detailed information. There is also a need for an overarching structure within which decisions might be made for specific circumstances.

The EU has a strategy for sustainable development which proffers the following justification for the strategy:

Sustainable development offers the European Union a positive long term vision of a society that is more prosperous and more just, and which promises a cleaner, safer healthier environment – a society which delivers a better quality of life for us, for our children, and for our grandchildren. Achieving this in practice requires that economic growth underpins economic performance, and that environmental policy is cost effective.⁵⁹

The strategy continues by identifying a need for the concepts of sustainability to be embedded within policymaking across the whole spectrum of government, not simply in those areas considered environment related.

All policies must have sustainable development as their core concern. In particular, forthcoming reviews of Common Policies must look at how they can contribute more positively to sustainable development.⁶⁰

Improved policy coherence alone however is not enough. The strategy also calls for

- Getting the prices right to give signals to individuals and businesses
- Investing in science and technology for the future
- Improvement in communication to mobilise citizens and business
- Taking the global dimension into account

Within these broad headlines the strategy looks at a variety of ways in which such aims might be achieved.

Multi-national organisations, like the World Bank, are valuable instruments in the implementation of sustainable development through country-driven strategies. The World Bank provides funds for development in emerging markets. If these funds can be tied to sustainable projects then the developments so funded should have as small an impact as possible on the environment. A part of the World Bank, the International

⁵⁹ http://europa.eu.int/eur-lex/en/com/cnc/2001/com2001_0264en01.pdf

⁶⁰ http://europa.eu.int/eur-lex/en/com/cnc/2001/com2001_0264en01.pdf

Finance Corporation, was recently reported to call for a greater role for the private sector in sustainable development:

Corporate citizenship, or sustainability, as the IFC describes it, is sometimes seen as a luxury that only the wealthy western multi-nationals can afford. This is a damaging myth, says Mr Woike [...] executive vice president of the IFC since 1999. He argues that the case for sustainability is even stronger for companies in the developing countries.⁶¹

The World Bank also performs a valuable role in monitoring progress, for example through the compilation of the World Development Indicators and the Millennium Development Goals.⁶²

A letter from the President of the World Bank to the Development Committee outlines the importance of environmental objectives within economic development projects:

The economic growth and opportunities flowing from private sector initiative and investment are crucial for progress in poverty reduction. This, and the role of the private sector in achieving environmental objectives were major themes of the Johannesburg Summit. The Bank Group is committed to helping our members' efforts in this area. In this context, the roles of the IFC and MIGA have become more important in recent years, yet the two institutions face increasing challenges, as private sector flows to developing countries declined sharply, and as strategic investors have withdrawn from many of these markets.

[...]

In the past year, Doha, Monterrey and Johannesburg have all contributed to solidifying a global consensus on partnership for development that holds a great promise. Our task now is to convert these broad commitments into concrete and monitorable actions. With our strategy established, our focus will continue to be on implementation and scaling up of our efforts. In particular, we will work with our partners to find better and more effective ways to help clients build their policies and institutions.

In the Bank, our focus would be to work with all our partners as we implement these agreements and scale up our efforts to meet the challenge set by the Millennium Development Goals. We must act on our promises now with a sense of urgency and with a sense that this is our responsibility and our destiny. The time for action is now. The opportunity is here.⁶³

⁶¹ "Developing nations win by getting greener", *Financial Times*, 28 June 2002

⁶² <http://www.developmentgoals.org/>

⁶³ Letter from President of World Bank to the Development Committee 66th meeting, 26 September 2002
[http://lnweb18.worldbank.org/dcs/devcom.nsf/\(documentsattachmentsweb\)/September2002EnglishDC20020024/\\$FILE/DC2002-0024\(E\)-PresNote.pdf](http://lnweb18.worldbank.org/dcs/devcom.nsf/(documentsattachmentsweb)/September2002EnglishDC20020024/$FILE/DC2002-0024(E)-PresNote.pdf)

The World Bank was also reported to have warned of a short window of opportunity in which to solve environmental and social problems before they overwhelm economic development:

This year's report appears to be more sceptical about free markets and economic growth as the overwhelming drivers of poverty reduction. "There is more to development than just economic growth – much more" it says.⁶⁴

C. Implementing Sustainable Development in the UK

An important recommendation of the Earth Summit was that individual countries should prepare strategies and action plans to implement their parts of the agreements established at Rio.

In 1994, the UK produced its strategy for implementing Agenda 21, *Sustainable Development: The UK Strategy*.⁶⁵ (All parties to Agenda 21 were expected to have national strategies by 2002.) On 4 February 1998, the Government launched their consultation paper "Opportunities for Change" on the review of the UK Sustainable Development Strategy. This document sets out the new Government's vision of sustainable development and actions being taken to implement that vision. It also poses some questions on which comments and suggestions were invited. In May 1999, the Government published a new Sustainable Development Strategy: *A better quality of life: a strategy for sustainable development for the UK*.⁶⁶

The Government has repeatedly stressed the importance it attaches to Agenda 21. For example, in answer to a Written Question, Michael Meacher, Minister for the Environment, said:

Mrs. Brinton: To ask the Secretary of State for the Environment, Transport and the Regions what plans he has to extend the range of organisations placed under the requirement to take Agenda 21 on sustainable development as an instrumental part of their responsibilities.

Mr. Meacher: There is no mandatory requirement on any organisation to take on Agenda 21. However, a wide range of organisations, including central and local government, business and the voluntary sector, are committed to take forward the Agenda 21 agreement on sustainable development. The Government accept their leadership role and are determined to implement sustainable development through their policies. We are introducing a new series of measures which will deliver this effectively throughout central Government Departments. In relation to local government, last month, at the UN special session on the environment in New

⁶⁴ "World Bank warns on sustainable development", *Financial Times*, 22 August 2002

⁶⁵ *Sustainable Development, The UK Strategy*, January 1994, Cm 2426

⁶⁶ *A better quality of life: a strategy for sustainable development for the UK*, Cm 4345, 1999
http://www.sustainable-development.gov.uk/uk_strategy/content.htm

York, my right hon. Friend the Prime Minister acknowledged the pivotal role of local authorities in promoting Local Agenda 21 and called on all UK local authorities to adopt Local Agenda 21 strategies by 2000. My right hon. Friend the Deputy Prime Minister followed this up at last week's Local Government Association conference by announcing that a joint central-local government document will be produced giving practical guidance on how to put such strategies in place....⁶⁷

As the Prime Minister acknowledged in his address to the UN Special Session, it is generally agreed that 'Local Agenda 21s' (LA21s) will be "pivotal" in putting sustainable development into practice. Chapter 28 of Agenda 21 encouraged local authorities to adopt Local Agenda 21s by 1996. The answer to a Parliamentary Question provides some insight into the success of promoting Agenda 21 on a local level:

Mr. Meacher: In June 1997 the Prime Minister set a target for all local authorities in the UK to adopt Local Agenda 21 strategies by the year 2000. A Government Office survey showed that 93 per cent. of local authorities met this target.

The Local Government Act 2000 placed a duty on local authorities to prepare a community strategy for promoting or improving the economic, social and environmental well-being of their area and contributing to the achievement of sustainable development in the United Kingdom. The Government wants to see sustainable development become a mainstream issue for local authorities, their partners, and local communities. It believes that the most effective way to achieve this is to subsume Local Agenda 21 strategies within community strategies.

The Department of Transport, Local Government and the Regions have introduced a Best Value Performance Indicator to report on local authorities' progress with community strategies. A survey of English and Welsh Authorities by the Local Government Association in autumn 2001 found that, of the 67 per cent. which responded, 27 per cent. of authorities had developed a strategy. Of those yet to develop a strategy, nearly 80 per cent. said they would have one by March 2002, and the remainder would be published by March 2003.⁶⁸

The Government has been developing the theme of sustainability throughout its term of office and have issued a number of guidance and consultation papers. The Office of the Deputy Prime Minister provides guidance to local authorities on preparing their community strategy.⁶⁹

⁶⁷ HC Deb 29 July 1997 c193w

⁶⁸ HC Deb 22 April 2002 c16-7W

⁶⁹ <http://www.local-regions.odpm.gov.uk/pcs/guidance/01.htm>

The DEFRA website has a collection of Government policy documents available for perusal.⁷⁰ This includes a link to the UK Round Table on Sustainability⁷¹ which also produces regular documents with regard to sustainability issues. The main source of sustainability information however is the dedicated sustainability website.⁷²

The central document is *A Better Quality of Life: A Strategy for Sustainable Development for the United Kingdom*⁷³ that outlines the main objectives of the Government for delivering sustainable development.

The Government introduced the Environmental Audit Select Committee⁷⁴ to better monitor Government performance with respect to the environment and sustainability.

The role of the Green Ministers has been enhanced and strengthened though not as far as many environmental bodies would like. The Greening Government Third Annual Report was published in November 2001 and outlined the following future work programme:

7.19 The term "Greening Government" no longer adequately covers the range of policy and operational issues that fall within the remit of ENV(G). In recognition of this the Greening Government Initiative will now continue as "Sustainable Development in Government".

7.20 Three broad priority areas have been agreed:

- Integrating sustainable development into decision making.
- Improving performance of the Government Estate.
- Promoting understanding of sustainable development across Government.

7.21 Early priorities under the first two themes will be:

- Integrating sustainable development in SR2002.
- Setting challenging long-term targets for the Government Estate.
- Government procurement.

SR2002

7.22 Sustainable development has featured in previous spending reviews, and will be an overall theme of SR2002. The UK Sustainable Development Strategy, A better quality of life, the headline indicators of sustainable development and the larger core set of sustainable development indicators provide a firm basis for the evaluation of impacts of policies on sustainable development. Green Ministers have an important role as champions of sustainable development in their departments, in ensuring that sustainable development is properly integrated into the spending review process.

⁷⁰ <http://www.defra.gov.uk/environment/sustainable/index.htm>

⁷¹ <http://www.open.gov.uk/roundtbl/hometb.htm>

⁷² <http://www.sustainable-development.gov.uk/>

⁷³ http://www.sustainable-development.gov.uk/uk_strategy/content.htm

⁷⁴ <http://www.parliament.uk/commons/selcom/eahome.htm>

7.23 SR2002 provides a practical opportunity for departments to gain a better understanding of the impacts of their policies on sustainable development and think creatively about how their policies can support sustainable development goals. For the first time in SR2002 each department with its own PSA will be required to produce a free standing Sustainable Development report. This will set out any anticipated significant social, economic and environmental impacts for departments' top priorities. Guidance issued to Departments on how to ensure sustainable development is incorporated into SR2002 has recently been published. It can be found on the HMT website at: <http://www.hm-treasury.gov.uk>.⁷⁵

The second annual report on the review of progress towards sustainable development outlined the Government's achievements with regard to meeting their commitments:

UK PROGRESS SINCE RIO

1994 The UK became one of the first countries to produce a sustainable development strategy in response to the call made at Rio, 'Sustainable Development: The UK Strategy'.

1997 The Labour Party won the General Election and announced its intention to prepare a new strategy for sustainable development. The Rio + 5 meeting in 1997 called for all countries to have a sustainable development strategy by 2002(Rio+10).The UK had already met this target.

1998 In the UK, a consultation document, 'Opportunities for change' and a summary leaflet for the general public were published. In addition, the Government consulted on a set of headline indicators of sustainable development, 'Sustainability counts'.

1999 In May 1999, the Government published a sustainable development strategy for the UK – 'A better quality of life' – which set out four objectives and ten guiding principles. The Strategy also included a core set of around 150 indicators of sustainable development, with a sub-set of 15 headline indicators, and a commitment to reporting against them on an annual basis.

2000 In October 2000 the Government established the Sustainable Development Commission, chaired by Jonathan Porritt, to advocate sustainable development across all sectors in the UK, review progress towards it and build agreement on achieving further progress. The Commission's challenge is to move the sustainable development agenda away from analysis towards implementation. At local level, well over 90% of local authorities had met the Prime Minister's challenge to have a Local Agenda 21 Strategy in place by the end of 2000. At Regional level, Sustainable Development Regional Frameworks have been launched in all English regions apart from London, which is now considering this

⁷⁵ <http://www.sustainable-development.gov.uk/gm2001/part1/07.htm>

following the appointment of a London Sustainable Development Commission by the Mayor.

2001 In January 2001, the Government published its first annual report reviewing progress towards sustainable development – ‘Achieving a better quality of life’ – .At the same time, the Government’s Sustainable Development website – <http://www.sustainable-development.gov.uk> – was launched to ensure that monitoring and reporting of progress is continuous. Finally, in April 2001, the Government launched a new Sustainable Development Research (SDR) Network to strengthen the delivery of high quality cross-cutting research relevant to those in the UK who make decisions in the context of sustainable development.

Specific examples of sustainable development advice produced by the Government are available through the *Opportunities for Change* series that includes advice on subjects such as “Making Biodiversity Happen”, “Sustainable Business”, “Sustainable Construction” and “Sustainable Production and Use of Chemicals”.⁷⁶

The Government also recently announced that environmental management systems would cover 80% of the Government Estate by 2006:

Department for Environment, Food and Rural Affairs Green Minister, Alun Michael said:

‘It is vital that the Government continues to focus on the performance of its own Estate, as part of the overall strategy on sustainable development. These targets signal the Government’s commitment to setting our own house in order and reporting publicly on our performance. This is an important step forward, and the Framework approach provides a sound basis for monitoring and improving the Government’s performance over this Parliament and beyond’.⁷⁷

D. Sustainable Development Indicators

Because the concept of sustainability is so amorphous there had to be some way of developing a measure of sustainability of a company or a country. To achieve this sets of indicators have been proposed. If certain measurable parameters can be identified that are linked to sustainability then, by measuring these parameters, an inherent measure of sustainability might be accomplished.

The Government detailed which indicators it planned to utilise to measure sustainable development in England and Wales in its report *Quality of Life Counts*,⁷⁸ Scotland published its equivalent *Meeting the Needs*.⁷⁹ The headline indicators (which can be

⁷⁶ http://www.sustainable-development.gov.uk/uk_strategy/archive.htm

⁷⁷ DEFRA Press Release, *Government commits to sustainable development*, 25 July 2002

⁷⁸ DETR, *Quality of life counts*, December 1999, ISBN 1 851123 43 1

⁷⁹ <http://sustainable.scotland.gov.uk/pubs/DynaPub/sustain/display?cache=985798453&publication=133>

broken up into more detailed subjects) are detailed in the report and reproduced in the table below.⁸⁰

With these indicators, it will be possible for government organisations to make plans based on improving the indicators but there is a concern that by focussing on the detail of the indicators the overall picture will be overlooked. The Government have provided information on how local government should approach the indicators and how they should be used for local planning concerns.⁸¹ They also produced a series of factsheets, now incorporated into a specialised website,⁸² that should allow various sections of society to work towards improving the sustainability of their home or work environments.⁸³

Table 3.1 The headline indicators in the UK sustainable development strategy		
Themes, issues and objectives (Strategy reference)	Ref no	Headline Indicators
Maintaining high and stable levels of economic growth and employment		
<ul style="list-style-type: none"> our economy must continue to grow (3.12) 	H1	total output of the economy (GDP and GDP per head)
<ul style="list-style-type: none"> investment (in modern plant and machinery as well as research and development) is vital to our future prosperity (3.14) 	H2	total and social investment as a percentage of GDP
<ul style="list-style-type: none"> maintain high and stable levels of employment so everyone can share greater job opportunities (Box after 1.8) 	H3	proportion of people of working age who are in work
Social progress which recognises the needs of everyone		
<ul style="list-style-type: none"> tackling poverty and social exclusion (7.17) 	H4	indicators of success in tackling poverty and social exclusion (children in low income households, adults without qualifications and in workless households, elderly in fuel poverty)
<ul style="list-style-type: none"> equip people with the skills to fulfil their potential (3.16) 	H5	qualifications at age 19
<ul style="list-style-type: none"> improve health of the population overall (3.17) 	H6	expected years of healthy life
<ul style="list-style-type: none"> reduce the proportion of unfit (housing) stock (3.18) 	H7	homes judged unfit to live in
<ul style="list-style-type: none"> reduce both crime and people's fear of crime (3.19) 	H8	level of crime

⁸⁰ DETR, *Quality of life counts*, Table 3.1 The headline indicators in the UK sustainable development strategy, December 1999

⁸¹ *Local quality of life counts, A handbook for a menu of local indicators of sustainable development*, <http://www.sustainable-development.gov.uk/indicators/local/localind/>

⁸² <http://www.doingyourbit.org.uk>

⁸³ http://www.sustainable-development.gov.uk/uk_strategy/factsheets/aydyb/

Table 3.1 The headline indicators in the UK sustainable development strategy <i>continued</i>		
Effective protection of the environment		
<ul style="list-style-type: none"> continue to reduce our emissions of greenhouse gases now, and plan for greater reductions in longer term (3.20) 	H9	emissions of greenhouse gases
<ul style="list-style-type: none"> reduce air pollution and ensure air quality continues to improve through the longer term (3.21) 	H10	days when air pollution is moderate or higher
<ul style="list-style-type: none"> improve choice in transport; improve access to education, jobs leisure and services; and reduce the need to travel (7.29) 	H11	road traffic
<ul style="list-style-type: none"> improving river quality (8.30) 	H12	rivers of good or fair quality
<ul style="list-style-type: none"> reverse the long-term decline in populations of farmland and woodland birds (3.24) 	H13	populations of wild birds
<ul style="list-style-type: none"> re-using previously developed land, in order to protect the countryside and encourage urban regeneration (3.25) 	H14	new homes built on previously developed land
Prudent use of natural resources		
<ul style="list-style-type: none"> move away from disposal of waste towards waste minimisation, reuse, recycling and recovery (Box after 6.11) 	H15	waste arisings and management

The Environmental Audit Select Committee commented⁸⁴ on the Government's second annual report on the sustainability indicators.⁸⁵ The Government is committed to annual reports on their progress and, where a trend is unacceptable, is also committed to adjusting policy to change that. The committee's report concluded that:

15. The Government's overall "ten out of fifteen" (66.6 per cent) score is somewhat selective. One could just as easily present the 2001 assessments as showing that only two of the seven environmental indicators (28.6 per cent) are showing clear progress, the rest (71.4 per cent) being to some degree unsatisfactory (para 54).

16. Where data is unavailable for a headline indicator in a particular year we agree that this should be marked as "incomparable data". However we recommend that, in such cases, the Government should consider providing an additional "proxy" traffic light assessment which indicates the Government's "best guess" at whether the indicator is on a sustainable track (para 55).

17. The Government must ensure that appropriate data is collected. Given that the 15 headline indicators were established in 1999, we are surprised and disappointed that there is still insufficient data in some areas to provide a complete picture (para 56).

18. The barometer clearly shows the environmental element of sustainable development to be the "Cinderella" of the three with little indication of how this situation is being tackled. The Government needs to demonstrate strongly its

⁸⁴ Environmental Audit Committee, *Measuring the Quality of Life: The 2001 Sustainable Development Headline Indicators*, 11 July 2002 HC 824 2001-2002

<http://www.parliament.the-stationery-office.co.uk/pa/cm200102/cmselect/cmenvaud/824/824.pdf>

⁸⁵ <http://www.sustainable-development.gov.uk/ar2001/index.htm>

commitment to take action if trends are heading in the wrong direction so that we all can see evidence that the Government is managing and not just measuring (para 58).⁸⁶

The deficiencies of the barometer were however addressed to some extent by an updated leaflet which was commended by the committee:

1. DEFRA has published an updated (June 2002) Quality of Life Barometer leaflet since we took evidence from Mr Meacher. This summarises the current position for the headline indicators. We are pleased to note that this version of the barometer incorporates a number of presentational changes which the Committee proposed in its oral evidence session with Mr Meacher. We commend the Government for this action and these changes are considered in the body of our report (para 6).⁸⁷

On 25 January 2002, the Government launched its new sustainable development website.⁸⁸ They also published regional versions of the headline indicators⁸⁹ reporting progress on sustainability within nine English regions and Wales. The Scottish Executive has established a similar webpage⁹⁰ for sustainability issues in Scotland including progress on indicators.⁹¹

IV The World Summit on Sustainable Development

A new UN Commission on Sustainable Development (CSD) was set up in December 1992 to monitor progress on Agenda 21 and had its first meeting in New York in June 1993.⁹²

Agenda 21 also recommended that the UN General Assembly should hold a five-year review or Special Session to review Agenda 21 no later than 1997. The UN General Assembly Special Session (variously known as UNGASS, Rio Plus 5 or Earth Summit II) was held from 9-13 June 1997 in New York. However, the political importance of climate change meant that UNGASS considered that issue in some depth whilst sustainable development was somewhat sidelined. At the time, Friends of the Earth commented that 'the most frightening thing about the Summit was the lack of political movement for sustainable development'.⁹³

⁸⁶ Environmental Audit Committee, *Measuring the Quality of Life: The 2001 Sustainable Development Headline Indicators*, 11 July 2002 HC 824 2001-2002 paras 54-58

⁸⁷ Environmental Audit Committee, *Measuring the Quality of Life: The 2001 Sustainable Development Headline Indicators*, 11 July 2002 HC 824 2001-2002 para 6

⁸⁸ <http://www.sustainable-development.gov.uk>

⁸⁹ <http://www.sustainable-development.gov.uk/indicators/regional/index.htm>

⁹⁰ <http://www.sustainable.scotland.gov.uk/>

⁹¹ <http://sustainable.scotland.gov.uk/pubs/DynaPub/sustain/display?cache=985798453&publication=82>

⁹² *Sustainable development: The UK Strategy*, January 1994, Cm 2426

⁹³ "Leaders duck deal on global warming", *Sunday Telegraph*, 29 June 1997

The Special Session failed to reach a consensus on a political declaration to mark the end of their deliberations. There was just too much of a difference of opinion on crucial issues such as climate change, forests and aid for developing countries. The *Programme for the further implementation of Agenda 21*,⁹⁴ a document over 50 pages long, was the only substantive result of the Session and negotiations on this ran well over time. The document opens with a “statement of commitment” which comments that:

We acknowledge that a number of positive results have been achieved, but we are deeply concerned that the overall trends for sustainable development are worse today than they were in 1992. We emphasise that the implementation of Agenda 21 in a comprehensive manner remains vitally important and is more urgent now than ever.....

We commit ourselves to ensure that the next comprehensive review of Agenda 21 in the year 2000 demonstrates greater measurable progress in achieving sustainable development.

The press comment on the outcome of the Special Session focussed on the lack of progress since the Rio Earth Summit.⁹⁵ The *Financial Times*, however, identified “greater involvement in sustainable development by non-governmental organisations, including private companies, was widely regarded as the biggest achievement since Rio”.⁹⁶

The Rio +10 Summit was the second appraisal of progress. The Prime Minister made a commitment to attend the summit. This made him the first leader of a developed nation to make that commitment.

I am committed to going personally to the Rio+10 Conference in South Africa. Of course it is about the environment: the issues of climate change, sustainable industrial growth, preservation of forests, fishing stocks and a range of other familiar issues. But it is not just about the environment. It is about sustainable development as a whole. It is about the reduction of poverty, relief from debt, widening educational opportunity, tackling disease and linking these goals to those of conserving the natural resources upon which the poorest depend for clean water, food, fresh air and their living.⁹⁷

The United Nations is the lead organisation with respect to the Earth Summit’s and had generated a website dedicated to the 2002 conference.⁹⁸ It was hoped that this summit would provide a useful review of the work and problems subsequently uncovered in the 10 years since the Earth Summit.

⁹⁴ Adopted by the Special Session of the General Assembly 23-27 June 1997, 1 July 1997

⁹⁵ “The Earth Summit: The five failures”, *The Daily Telegraph*, 24 June 1997 and “Earth Summit: Delegates fail to agree on political declaration”, *The Irish Times*, 28 June 1997.

⁹⁶ “‘Sludge’ and ‘dreams’ at green talks”, *Financial Times*, 23 June 1997

⁹⁷ <http://www.number-10.gov.uk/news.asp?NewsId=1872&SectionId=32>

A. Comment Prior to the Summit

The Environment Minister, Mr Meacher, attended a United Nations Environment and Development UK Committee (UNED) conference in January 2002 where he identified UK priorities for the forthcoming summit:

Within the UK, Ministers have considered what our priorities and objectives should be for the Summit. We aim to encapsulate all three pillars of sustainable development – economic, social and environmental – and to address the need for action both in the North and in the South. We also want to emphasise practical implementation, including the engagement of civil society, especially business and NGOs, in partnerships to follow up WSSD. Above all, our priorities are focussed on policy areas where we think the UK can add value.

The UK's overarching strategic objective is to **eradicate poverty by making globalisation work for sustainable development**. Here the prime responsibility is on governments to agree – and implement - the right framework conditions for global sustainable development. The poverty emphasis is essential, though we also need to address the wider issue of making globalisation work for all. We will be pursuing this in close co-operation with other Departments including DFID and HMT, given the close links with the post Doha new trade Round and the Financing for Development process, which culminates in Monterrey in March.

Against the background of our strategic objective of making globalisation work for sustainable development, the UK will pursue a limited number of more specific objectives. These will include the development of tripartite initiatives with business and civil society – and capacity building will be an important cross-cutting element. They are:

- Freshwater and oceans
- Access to sustainable energy
- Sustainable development initiatives for Africa
- Resource productivity/efficiency worldwide (including the use of scientific and technological knowledge)

These combine a focus on the South with a clear recognition that the North needs to put its own house in order. They can be pursued through a number of channels, including the preparation of EU position papers, input to the development of the "external dimension" of the EU Sustainable Development Strategy, activity in the G8 and the all important work of developing sectoral and regional deliverables with other partners. Of course, putting our house in order will also be addressed through other action, for example, to ratify Kyoto and the Stockholm Convention (on Persistent Organic Pollutants - POPs) in good time for Johannesburg.

Clearly, there are overlaps between some of our objectives and synergies can be developed between them. They link up with the five tripartite 'business' initiatives being developed in response to the Prime Minister's challenge last April,

⁹⁸ <http://www.johannesburgsummit.org/>

particularly those on water, energy and financial services. There is also scope to consider cross-cutting issues such as the possibility of commitments from business on reporting and corruption, or the further development of measures to overcome barriers to private investment in developing countries.⁹⁹

The Secretary of State, Margaret Beckett, in a speech to the World Bank identified actions being taken in the UK that might inform discussion at the Johannesburg meeting:

In the UK the Corporation of London has taken a lead in drawing up a set of principles which, when endorsed by financial institutions, will demonstrate their commitment to play a serious role in the financing of sustainable development. The London Principles ask signatories to reflect the cost of environmental and social risks in the pricing of financial and risk management products, to provide access to finance for the development of environmentally beneficial technologies, and to provide access to financial services for businesses in disadvantaged communities and developing countries.

Of course we recognise that others will have their own perspective on what internationally adopted standards should include, but we hope the London Principles can provide a useful blueprint at Johannesburg.¹⁰⁰

The London Principles are:

The London Principles for Economic Prosperity, Environmental Protection and Social Development:

Principle 1: Provide access to finance and risk management products for investment, innovation and the most efficient use of existing assets;

Principle 2: Promote transparency and high standards of corporate governance in themselves and in the activities being financed;

Principle 3: Reflect the cost of environmental and social risks in the pricing of financial and risk management products;

Principle 4: Exercise equity ownership to promote efficient and sustainable asset use;

Principle 5: Provide access to finance for the development of environmentally beneficial technologies;

Principle 6: Exercise equity ownership to promote high standards of corporate social responsibility by the activities being financed;

Principle 7: Provide access to market finance and risk management products to businesses in disadvantaged communities and developing economies.

⁹⁹ Rt Hon Michael Meacher, Minister for the Environment, “A vision for our common future: The UK’s contribution to the Earth Summit 2002”, UNED-UK Conference, 22 January 2002

<http://www.unedforum.org/conf/conf%202002/Meacher%2022%20Jan%202002.pdf>

¹⁰⁰ <http://www.defra.gov.uk/corporate/ministers/speeches/mb110402.htm>

The London Principles are aspirational and seek to encourage continuous improvement. To make this process transparent, signatories of the London Principles will report annually on progress towards their implementation.¹⁰¹

In May this year, the Secretary-General of the United Nations made a statement in New York about the aims of the upcoming summit. He began by outlining five areas that the summit needed to focus upon:

...The Johannesburg Summit aims to find practical ways for humanity to respond to both these challenges – to better the lives of all human beings, while protecting the environment. The Summit also aims to move from commitments – of which we have had plenty, 30 years ago and 10 years ago – to action. I see five specific areas where concrete results are both essential and achievable.

First is water and sanitation. More than 1 billion people are without safe drinking water. Twice that number lack adequate sanitation. And more than 3 million people die every year from diseases caused by unsafe water. Unless we take swift and decisive action, by 2025 as much as two thirds of the world's population may be living in countries that face serious water shortage. We need to improve access. We need to improve the efficiency of water use, for example by getting more “crop per drop” in agriculture, which is the largest consumer of water. And we need better watershed management, and to reduce leakage, especially in the many cities where water losses are an astonishing 40 percent or more of total water supply.

The second area is energy. Energy is essential for development. Yet two billion people currently go without, condemning them to remain in the poverty trap. We need to make clean energy supplies accessible and affordable. We need to increase the use of renewable energy sources and improve energy efficiency. And we must not flinch from addressing the issue of overconsumption – the fact that people in the developed countries use far more energy per capita than those in the developing world. States must ratify the Kyoto Protocol, which addresses not only climate change but also a host of unsustainable practices. States must also do away with the perverse energy subsidies and tax incentives that perpetuate the status quo and stifle the development of new and promising alternatives.

Third is agricultural productivity. Land degradation affects perhaps as much as two thirds of the world's agricultural land. As a result, agricultural productivity is declining sharply, while the number of mouths to feed continues to grow. In Africa, especially, millions of people are threatened with starvation. We must increase agricultural productivity, and reverse human encroachment on forests, grasslands and wetlands. Research and development will be crucial, as will implementation of the UN Convention to Combat Desertification.

¹⁰¹ <http://www.sustainable-development.gov.uk/wssd/lp/01.htm#2>

The fourth area is biodiversity and ecosystem management. Biodiversity is declining at an unprecedented rate – as much as a thousand times what it would be without the impact of human activity. Half of the tropical rainforests and mangroves have already been lost. About 75 percent of marine fisheries have been fished to capacity. 70 percent of coral reefs are endangered. We must reverse this process -- preserving as many species as possible, and clamping down on illegal and unsustainable fishing and logging practices -- while helping people who currently depend on such activities to make a transition to more sustainable ways of earning their living.

Finally, the area of health. The links between the environment and human health are powerful. Toxic chemicals and other hazardous materials are basic elements of development. Yet more than one billion people breathe unhealthy air, and three million people die each year from air pollution – two thirds of them poor people, mostly women and children, who die from indoor pollution caused by burning wood and dung. Tropical diseases such as malaria and African guinea worm are closely linked with polluted water sources and poor sanitation. Conventions and other steps aimed at reducing waste and eliminating the use of certain chemicals and substances can go a long way to creating a healthier environment. But we also need to know better how and where to act – meaning that research and development are especially important, particularly studies that focus more on the diseases of the poor than has historically been the case.¹⁰²

He pointed to the demise of Mayan and Sumerian civilisations as examples of what can happen when human development is not matched by care for the environment which supports it. He pointed out that our own civilisation is also in a race with potential environmental disaster but that there was a chance we could avoid the fate of earlier civilisations:

So far, our scientific understanding continues to run ahead of our social and political response. With some honourable exceptions, our efforts to change course are too few and too little. The question now is whether they are also too late. In Johannesburg, we have a chance to catch up.¹⁰³

He also indicated that sustainable development was not a competition between environment and development, a dynamic that often receives attention in the media:

The issue is not environment versus development, or ecology versus economy. Contrary to popular belief, we can integrate the two. Nor is the issue one of rich versus poor. Both have a clear interest in protecting the environment and promoting sustainable development.¹⁰⁴

¹⁰² http://www.johannesburgsummit.org/html/documents/summit_docs/sg_speech_amnh.doc

¹⁰³ *ibid*

¹⁰⁴ *ibid*

B. The Summit

The World Summit on Sustainable Development was organised under the auspices of the United Nations as an opportunity to revisit the issues discussed in 1992 in Rio de Janeiro and examine progress made since that time. It was also an opportunity to determine how successful, or unsuccessful, particular approaches to the issue of sustainable development have been and how to progress in the future.

The United Nations published information on the Summit and its preparations on their website.¹⁰⁵ This contains background information on topics such as Agenda 21,¹⁰⁶ the Commission on Sustainable Development¹⁰⁷ and Earth Summit +5.¹⁰⁸

The summit itself had a dedicated website¹⁰⁹ focused more upon the issues to be addressed in Johannesburg and the more practical issues of attendance. The major topics of the summit were:

- Poverty and the Millennium Development Goals
- Water
- Health
- Energy
- Protecting Natural Environments
- Globalization
- Consumption and Production Patterns
- Africa
- Implementing Agenda 21
- Forests

Factsheets on each of these topics were prepared by the UN.¹¹⁰ A number of briefing documents are also available from the International Institute for Environment and Development.¹¹¹

1. Commentary on Summit

The Summit attracted a large amount of press interest. Even as the Summit began the environmental groups were sceptical of the commitment of world governments to address the issues:

¹⁰⁵ <http://www.johannesburgsummit.org/>

¹⁰⁶ <http://www.un.org/esa/sustdev/agenda21.htm>

¹⁰⁷ <http://www.un.org/esa/sustdev/csd.htm>

¹⁰⁸ <http://www.un.org/esa/earthsummit/>

¹⁰⁹ <http://www.joburgsummit2002.com/>

¹¹⁰ http://www.johannesburgsummit.org/html/media_info/factsheets.html

¹¹¹ <http://www.iied.org/wssd/pubs.html#brief>

On the first day of informal negotiations at the Johannesburg Earth Summit, Friends of the Earth International, Greenpeace and Third World Network today obtained a leaked copy of a joint US/EU negotiating paper, which they said threatened to hijack the Earth Summit process and turn it from a sustainable development into a trade summit. The international NGOs blasted the EU and the US for trying to steamroller their trade and globalization agenda through the Earth Summit process. The groups said that Johannesburg was being turned from Rio+10 into Doha +10 months.¹¹²

They were especially sceptical about the intentions of United States of America negotiators at the Summit:

Corporate polluters such as Exxon Mobil and conservative lobbyists have already leaned on President Bush not even to show up, and are now demanding that his negotiators do their best to wreck any hope of agreement.¹¹³

Scepticism increased further with the news that businessmen, including an executive Director of RTZ, the world's largest mining firm, would accompany the British delegation. Even though the businessmen would fund their personal attendance costs, they would benefit from access to ministers.¹¹⁴

The involvement of business, however, was inevitable and, indeed, necessary:

“Given the power of business in the modern global economy, it is impossible to move towards a more sustainable approach without the involvement of corporations,” said Matt Phillips of environmental group Friends of the Earth.¹¹⁵

A major question would be whether the involvement would be voluntary or compulsory, regulated or unregulated:

The negotiating text for the summit calls for the promotion of corporate accountability and responsibility yet refers only to a voluntary system. An estimated 5,000 pro-business lobbyists led by US interests will chorus the message that the status quo is adequate.

[...]

No one is arguing that big business is bad by definition, but many delegates are demanding that the giant companies provide a vehicle for positive change and use

¹¹² Friends of the Earth International Press Release, *Free trade takeover of the Earth Summit*, 25 August 2002 <http://www.foei.org/media/2002/0825.html>

¹¹³ Friends of the Earth International Press Release, *How to sabotage a summit*, 15 August 2002 <http://www.foei.org/media/2002/0815earth.htm>

¹¹⁴ “Meacher: I am a lone voice at the summit”, *The Guardian*, 12 August 2002

¹¹⁵ “Who will save the world?”, *The Observer*, 18 August 2002

their investment to create environmentally-sound enterprises that benefit the countries they operate within.¹¹⁶

The Financial Times carried a warning that if business was not perceived to be contributing governments might decide that they had to introduce controls:

[Claude Fussler, director of stakeholder relations at the World Business Council for Sustainable Development, said] “Cynics think that business wants it both ways: voluntary action to keep legislation away while an unchanged market framework protects business as usual.”

This perception carries risks. If the idea of partnership between governments and business is perceived to fail, it could be replaced by a far more rigid, prescriptive approach. Businesses might once again be subject to ‘command-and-control’ regulation.¹¹⁷

The Secretary of State for the Environment, Margaret Beckett, while acknowledging the risk that no concrete results may come from the Summit encouraged a more positive approach:

While claiming it was “absolutely possible” for the landmark summit to be a success, she said it was something “we must strive for”, rather than the likely outcome. “We should, we want to get, we hope for a positive outcome,” added Mrs Beckett.

She went on to warn of a lost opportunity if the green lobby groups [...] continued to carp.¹¹⁸

Jonathan Porrit, chairman of the Sustainable Development Forum, criticised the Government’s performance with respect to the environment and their failure to prioritise sustainable development within the whole government policy:

...from a broader sustainable development perspective rather than a narrowly environmental one, this is probably the best government we've yet had. Not only that, it's one of the few governments in Johannesburg that's going to have any kind of story to tell about progress made since the Earth Summit 10 years ago.

And that just demonstrates the desperate straits we're in. Relative measures can be very deceptive. For a country to find itself near to the top of the champions' league when its actual record (assessed against what it should be doing, regardless of what anyone else is doing) would have it buried deep down in division two, makes impartial evaluation very difficult. A lot of the really good things (increasing aid budgets, leadership on debt relief, the climate change levy, a carbon emissions trading scheme, improved water quality, efforts to transform

¹¹⁶ “Who will save the world?”, *The Observer*, 18 August 2002

¹¹⁷ “Shades of green”, *Financial Times*, 19 August 2002

¹¹⁸ “Jo’burg summit feared to produce just exhortations”, *Financial Times*, 24/25 August 2002

the Common Agricultural Policy, the annual Quality of Life report, and a lot more besides) inevitably fall by the wayside.

That's partly because there's a bigger problem. Sustainable development is not yet a central concern for this Government. At best, it's an 'every now and then' kind of thing, to be run occasionally and ostentatiously up the flagpole just to show willing; at worst, it's an irritating pressure point that cuts across more 'mainstream' agendas.¹¹⁹

Margaret Beckett accepted this criticism and the need to improve:

Margaret Beckett, the environment secretary, told the BBC from Johannesburg: "I fully accept that he is right to say, and I think all of us would accept, including the prime minister, that there is much more to do on these issues. A lot has been done to put sustainable development at the heart of government policy, but what I do accept is that we need to do more and do better, and perhaps we need to be seen to do it more."¹²⁰

John Prescott on his arrival at the summit was reported as saying that failure to achieve at the summit would be tragic:

If we fail here, things would unravel on a scale that we have not seen before in international negotiations. That would be tragic for the whole world and most of all for those who are in poverty and despair.

[...]

Mr Prescott also took issue with America by insisting the principle of 'shared but differentiated responsibility' – which in effect means rich countries carry the heaviest burden in solving environmental crises – must feature in any final agreement.

The principle was agreed at the Rio Earth Summit 10 years ago, but the United States has so far been against it in these negotiations.¹²¹

2. Outcomes

An early outcome of the summit was the Johannesburg principles on the rule of law and sustainable development: this agreement was signed by judges from 62 countries pledging them to use existing international laws to protect the environment and the progress of sustainable development.

Announcing the plan at the earth summit the chief justice of South Africa, Arthur Chaskalson, said: "Laws are ineffective unless they are implemented, and much environmental law exists but has not been enforced."¹²²

¹¹⁹ "A summit that must succeed", *The Observer*, 25 August 2002

¹²⁰ "Earth Summit 2002: Blair adviser attacks Labour's record", *The Guardian*, 26 August 2002

¹²¹ "Prescott warns that Earth Summit failure would wreak global havoc", *The Independent*, 30 August 2002

The main agreement at the summit, a plan of implementation,¹²³ was widely touted as a failure in the press.¹²⁴ One of the major concerns was that many of the ‘outcomes’ announced had already been agreed at other summits or were watered down versions of previous agreements. Some of those identified in the press are listed below:

Issue	Summit Announcement	Comment
HIV/AIDS	To reduce by 25 per cent HIV prevalence among 15 to 24 year olds by 2005	Agreed earlier at UN AIDS conference
Water	To halve the number of people without access to drinking water by 2015	Agreed previously in UN Millennium Declaration
Electricity	To improve access to reliable and affordable energy services	Agreed previously in UN Millennium Declaration
Poverty	To halve by 2015 the number of people living on under \$1 a day	Agreed previously in UN Millennium Declaration
Infant Deaths	To reduce deaths of under-fives by two thirds by 2015	Agreed previously by UN General Assembly
Aid	To increase development aid to 0.7 per cent of GDP in developed countries	Agreed at previous International Conference on Financing and Development
Habitats and Wildlife	To slow or stop biodiversity loss by 2010	Weaker than the UN Biodiversity Convention
Third World Debt	To reduce unsustainable debt burden	Agreed previously in Monterrey Consensus ¹²⁵

The UN summarised the key outcomes of the summit as follows:

- The Summit reaffirmed sustainable development as a central element of the international agenda and gave new impetus to global action to fight poverty and protect the environment.
- The understanding of sustainable development was broadened and strengthened as a result of the Summit, particularly the important linkages between poverty, the environment and the use of natural resources.
- Governments agreed to and reaffirmed a wide range of concrete commitments and targets for action to achieve more effective implementation of sustainable development objectives.
- Energy and sanitation issues were critical elements of the negotiations and outcomes to a greater degree than in previous international meetings on sustainable development.

¹²² “Judges pledge to champion the environment”, *The Guardian*, 28 August 2002

¹²³ http://www.johannesburgsummit.org/html/documents/summit_docs/2309_planfinal.doc

¹²⁴ for example, “Earth summit failed to help planet, say voters”, *The Observer*, 8 September 2002

¹²⁵ From: “Lip service to a plan that won’t hold water”, *The Times*, 4 September 2002

- Support for the establishment of a world solidarity fund for the eradication of poverty was a positive step forward.
- Africa and NEPAD were identified for special attention and support by the international community to better focus efforts to address the development needs of Africa.
- The views of civil society were given prominence at the Summit in recognition of the key role of civil society in implementing the outcomes and in promoting partnership initiatives. Over 8,000 civil society participants attended the Summit, reinforced by parallel events which included major groups, such as, NGOs, women, indigenous people, youth, farmers, trade unions, business leaders, the scientific and technological community and local authorities as well as Chief Justices from various countries.
- The concept of partnerships between governments, business and civil society was given a large boost by the Summit and the Plan of Implementation. Over 220 partnerships (with \$235 million in resources) were identified in advance of the Summit and around 60 partnerships were announced during the Summit by a variety of countries.¹²⁶

An article on the summit website lauds the summits achievements:

The Summit resulted in major government commitments to expand access to safe water, proper sanitation and modern, clean energy services, as well as to reverse the decline of ecosystems by restoring fisheries, curtailing illegal logging and limiting the harm caused by toxic chemicals. In addition to those commitments, many voluntary partnerships were launched in Johannesburg by governments, NGOs and businesses to tackle specific projects.¹²⁷

Another article on the website lists money committed at the summit, even if this had been agreed earlier the summit may have stimulated action in various areas:

As a result of the Summit, governments agreed on a series of commitments in five priority areas that were backed up by specific government announcements on programmes, and by partnership initiatives. More than 220 partnerships, representing \$235 million in resources, were identified during the Summit process to complement the government commitments, and many more were announced outside of the formal Summit proceedings.

For example, Desai said, for water and sanitation, countries agreed to commit themselves to halve the proportion of people who lack clean water and proper sanitation by 2015. These commitments were backed up by a United States announcement of an investment of \$970 million in water projects over the next three years, and a European Union announcement to engage in partnerships to

¹²⁶ http://www.johannesburgsummit.org/html/documents/summit_docs/2009_keyoutcomes_commitments.doc

¹²⁷ http://www.johannesburgsummit.org/html/whats_new/feature_story40.html

meet the new goals, primarily in Africa and Central Asia. The UN received 21 other partnership initiatives in this area with at least \$20 million in extra resources.

In energy, Desai said countries committed themselves to expanding access to the two billion people that do not have access to modern energy services. In addition, he added that while countries did not agree on a target for phasing in renewable energy, they did commit to green energy and the phase out of subsidies for types of energy that are not consistent with sustainable development. And to bolster these commitments, a group of nine major electric companies signed agreements to undertake sustainable energy project in developing countries. In addition, the EU announced a \$700 million partnership initiative on energy and the US announced investments of up to \$43 million for energy in 2003.

On health issues, in addition to actions to fight HIV/AIDS and reduce water borne diseases, and the health risks due to pollution, countries agreed to phase out, by 2020, the use and production of chemicals that harm human health and the environment.

Proposals for the Global Environment Facility to fund implementation of the Convention to Combat Desertification have already been adopted, and will have a major impact on improving agricultural practices in the drylands. The United States said it would invest \$90 million in 2003 for sustainable agriculture and 17 partnership submissions to the UN contained at least \$2 million in additional resources.

There were many commitments made to protect biodiversity and improve ecosystem management, Desai said. These include commitments to reduce biodiversity loss by 2010; to restore fisheries to their maximum sustainable yields by 2015; to establish a representative network of marine protected areas by 2012; and to improve developing countries' access to environmentally-sound alternatives to ozone depleting chemicals by 2010. These commitments are supported by 32 partnership initiatives submitted to the UN, with \$100 million in additional resources, and a US announcement of \$53 million for forest management in 2002-2005.

"It's impossible to know just how many resources the Summit has mobilized," Desai said, "but we know they are substantial. Furthermore, many of the new resources will attract additional resources that will greatly enhance our efforts to take sustainable development to the next level, where it will benefit more people and protect more of our environment."¹²⁸

The agreements are largely without specific targets or binding agreements. However, the agreement does mean that the attending governments are signed up to the targets:

The Johannesburg summit may make little difference, but its ultimate defence is that it was the best that could be achieved under the circumstances. There is only

¹²⁸ http://www.johannesburgsummit.org/html/whats_new/feature_story38.htm

one thing worse than 190 countries talking about the world's most pressing problems and agreeing on very little – 190 countries that are not talking at all.¹²⁹

Even then the agreement was struck only after the European Union gave up attempts to include rigorous targets to increase renewables as Japan the US and OPEC resolutely opposed such an inclusion.¹³⁰

Seven out of ten people think the Johannesburg Earth Summit has made almost no difference to the future of the planet. And only one in 500 people believes that the controversial £40 million meeting attended by leaders from more than 100 countries with 60,000 participants, will make the world 'a lot better'.¹³¹

Despite the popular perception a more positive spin was to be found reported in the pages of the journal, *Science*. The plan of implementation could act as foundation for progress:

“There's something to build upon, but it's more like a statement of intentions,” says economist Jeffrey Sachs, head of Columbia University's Earth Institute. Like others, Sachs was disappointed by the dearth of concrete plans that emerged, including the lack of support for the "coalition of the willing" on renewable energy or his own suggestion to triple the budget of the world's global network of agricultural research. “But there's at least a fighting chance of making this a real plan of action,” he says.

[...]

Canada and Russia used the summit to declare their intention to ratify the Kyoto climate treaty.¹³²

Another potentially positive outcome of the summit may have been an international agreement to go further than the summit agreement on provision of renewable energy.¹³³ The EU has pioneered a "coalition of the willing" on renewable energy to promote the development of renewable energy in developing nations:

The European Union today announced that it is forming a coalition of like-minded countries and regions committed to increasing their use of renewable energies through quantified, time-bound targets.¹³⁴

¹²⁹ “Lip service to a plan that won't hold water”, *The Times*, 4 September 2002

¹³⁰ “After days of intense negotiations, leaders settle on blueprint to keep the planet alive”, *The Independent*, 3 September 2002

¹³¹ “Earth Summit failed to help planet, say voters”, *The Observer*, 8 September 2002

¹³² “World Summit adopts voluntary Action Plan”, *Science*, 13 September 2002

¹³³ “Britain joins pact to boost green power”, *The Guardian*, 5 September 2002

¹³⁴ EU Press Release, IP/02/1264, *European Union launches coalition of like-minded states to deliver World Summit renewable energy goals*, 3 September 2002

http://europa.eu.int/rapid/start/cgi/guesten.ksh?p_action.gettxt=gt&doc=IP/02/1264|0|RAPID&lg=EN&display=

3. A Sustainable Summit?

The Johannesburg World Summit Company (JOWSCO) was set up by the South African Government with responsibility for summit logistics. 60-70,000 delegates were due to attend at an expected cost of around 550m Rand.¹³⁵ At approximately 15.7 Rand to the pound and 10 Rand to the US dollar, this estimated cost equates to around £35 million or US\$55 million.

The Summit was also expected to “contribute 1.6 billion Rand to the national economy, of which 1 billion Rand will flow into the Greater Johannesburg area”.¹³⁶

A former Johannesburg city councillor was reported criticising the summit:

Mr Ngwane plans to lead the Soweto Electricity Crisis Committee in a march on the summit on August 31 and a ‘festival of resistance against visiting heads of state’ two days later.

“The WSSD is a gathering of the rich and powerful; it is a gathering of hypocrites; it is a gathering of the exploiters... We’ll take Sandton [the convention centre used by the summit]” he told a crowd which gathered at the trial of those who stormed the mayor’s house. “We want it to be the biggest march in South Africa since Thabo Mbeki took over. The very same country that is hosting [the summit] is evicting people from houses, cutting electricity.”¹³⁷

One effect of such criticisms of wealth being spent in the face of extreme poverty may have been the UK’s decision to cut the delegation from 100 to 70. This however triggered its own storm as one of those cut from the delegation was Michael Meacher, the environment minister:

As a result, what is billed as the biggest conference the world has seen will have delegates from 174 countries but will include only 173 environment ministers.¹³⁸

Environmental groups were concerned that this meant the only minister they consider to fully grasp the environmental issues had been dropped from the delegation. Friends of the Earth even offered to pay for Mr Meacher¹³⁹ but he was eventually reinstated to the official UK delegation.¹⁴⁰

The UN also set up a fund, The Joburg Climate Legacy Project, allowing delegates to pay to offset the carbon dioxide generated by their attendance which would be used to fund

¹³⁵ JOWSCO website, *Basic Factsheet*, see

<http://www.joburgsummit2002.com/SAHostCountry/positions.asp>

¹³⁶ JOWSCO website, *Basic Factsheet*, see

<http://www.joburgsummit2002.com/SAHostCountry/positions.asp>.

¹³⁷ “City of extremes spruces up to play host to earth summit”, *The Guardian*, 21 August 2002

¹³⁸ “Minister dumped in junket row”, *The Guardian*, 6 August 2002

¹³⁹ “Meacher apparently excluded from Earth Summit as lobbyists offer to pay his fare”, *Financial Times*, 7 August 2002

¹⁴⁰ “Meacher back on earth summit team”, *The Guardian*, 8 August 2002

clean energy sources to help ‘improve the quality of life in poor communities in South Africa’:

Joburg Climate Legacy (JCL) Project, on 30 August 2002, at the Nedbank Building in Sandton. The JCL is an attempt to make the WSSD climate neutral by getting delegates to invest in energy efficient carbon off-set projects¹⁴¹

[...]

The project aims to raise US\$5 million. The funds will be used to support South African projects that permanently reduce carbon emissions. The aim is to invest in enough projects to offset the carbon emissions produced by the Summit.¹⁴²

The UK participated in the project:

Malcolm Bruce: To ask the Secretary of State for Trade and Industry what steps she is taking to offset the carbon emissions (a) she personally and (b) the British Government delegation will account for in their attendance at the forthcoming earth summit in Johannesburg.

Mr. Meacher [holding answer 22 July 2002]: I have been asked to reply.

The carbon emissions caused by the government delegation's travel to and attendance at the World Summit on Sustainable Development have been offset through our participation in the Johannesburg Climate Legacy Project.¹⁴³

Commentaries have presented the conference as poised on the horns of a dilemma on whether to focus on the environment while sacrificing the world's poor or vice versa.¹⁴⁴ One hard answer was presented in *The Independent*:

But who should win? The poor or the environmentalists? Is it just a battle between the poor and the environment? To some extent I fear it may be. In which case the tension between Mr Meacher and Ms Short, representing the different interests of their departments is understandable. The way round this conundrum is for the richer countries to face up to an alternative: that they need to reduce their energy needs in order that scarce resources are transferred to the Third World. In other words nothing will give until there is a direct transfer of resources from rich to poor.¹⁴⁵

¹⁴¹ <http://www.greeningthewssd.com/NEWSANDEVENTSHEAD.htm>

¹⁴² <http://www.greeningthewssd.com/carbon.htm>

¹⁴³ HC Deb 26 September 2002 c207W

¹⁴⁴ For example, “Sustainable development is just dangerous nonsense”, *Daily Telegraph*, 16 August 2002

¹⁴⁵ “The Johannesburg conundrum: do we save the world, or save the world's poor?”, *The Independent*, 13 August 2002