

UK SCENARIOS 1989

HAS THE BIGGEST CHALLENGE BEGUN?

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5 SUSTAINABLE WORLD

THE GLOBAL LINK

The main driver in this scenario is environmental concern propelled by a growing awareness that continued economic growth along traditional lines is not sustainable.

The key lies in:

- further international co-operation in reducing global financial imbalances,
- international co-operation on environmental issues,
- the promotion of ecologically sound economic growth in developing countries via the injection of substantial resources.

A pre-requisite is a successful resolution of the current imbalances in the economic system. This is achieved via a debt reduction programme initiated by the OECD and linked to the Developing Countries.

A resilient global economy allows greater weight to be given to longer term considerations, increasingly dominated by environmental issues.

Green issues become an integral part of the political agenda. They lead to OECD countries adopting environmental programmes in response to public/media pressures. The policy response includes much tighter targets for CO₂ emissions and CFC usage, and the introduction of carbon taxes and elimination of many CFCs. It is matched by strong consumer demand for environmentally clean products.

Action in the OECD is only the beginning. There is recognition of the potential environmental damage by rapidly growing LDCs and that global problems require global solutions. Developing Countries are persuaded to participate, particularly with regard to deforestation and energy efficiency, through a set of carrots and sticks - eg targeted aid, and debt write-downs to those willing to cooperate on environmentally sound policies.

Tougher action is taken against emissions and spillages, and there is an expansion of "no-go" areas where technical failure or human error may cause large-scale ecological damage.

As these features take hold, the source of world economic growth shifts from consumption to investment as more resources are devoted to care of the environment.

The emphasis in technological development moves towards alternative sources of energy and the reduction of consumption of hydrocarbons.

ENVIRONMENT

Sustainable World recognises that it is essential to everyone's interest to protect the world's fragile life-support and eco-systems. Nations like the UK, and groups such as the EC, introduce their own legislation both to lead the world community and to play their part. The numbers involved, and the differing capabilities of the disparate nations to act, make international legislation more cumbersome. Even here though, widespread belief in the importance of the environment makes progress possible. The logic has been encapsulated in Chart 6.

Environmental pressure groups will be powerful. Their interplay with government will often lead to legislation (industry lobbies having little influence); but legislation may be superfluous if consumer behaviour has already rendered stringent environmental standards essential.

The environmental concerns of GM will be felt in SW, but will be wider and deeper. The three main areas of health, environmental pollution and depletion will be addressed - this last encompassing not just energy, but other resources and aspects of the countryside. In particular, global issues will be grasped, and progress will be rapid when issues capture the imagination, are simple and/or have simple solutions. There will be national and international legislation, effective consumer responses and - in the interim particularly - environmental litigation. Much of this litigation will be vexatious - specialist lawyers and environmental lobbyists creating opportunities to further their interests and views. Heavy costs are incurred by energy and chemical companies.

The consumer response, an essential difference from GM, will be based on the intense interest of media and public. The resulting mixture of profound concerns and hasty crusades will lead to intense and unpredictable pressures on business.

Where there can be real consumer choice it will be a dominant force, especially where interest is heightened by obvious environmental impact, sensitisation by frequent purchases and by high peer visibility. Volatile consumer behaviour or even action by others (such as the dockers who handled imported PCBs) will make some unpredicted constraints appear capricious; but alongside numerous emotional responses there will be mainstream, considered concerns.

Environmental constraints will be felt throughout the business. Concerns about global warming and depletion will depress production of fossil fuels, their market share declining as renewables are actively promoted. High energy prices will enhance the savings made due to legislation and consumer choice, facilitated by innovation.

One mechanism will be carbon taxes, which will constrain gas least; but high standards will be set and enforced to minimise leakages, for which high energy costs would be an inadequate incentive.

Concerns in SW will extend to the appearance of the countryside. This will challenge large investments (such as refineries and power stations) and infrastructural developments such as power transmission and transport systems. Even the appearance of service stations may be challenged in a world where the ethos is to be at one with the environment.

Environmental aspects of the scenarios are compared in the box below.

Environmental Aspects Of Scenarios		
GLOBAL MERCANTILISM	ASPECT	SUSTAINABLE WORLD
Moderate	Level of Concern	Intense
EC-wide issues	Geographical scope	Local, national & global issues
Enviro. quality & trade equality	Objectives	A sustainable world
Legislation	Mechanism	Legislation plus consumer interest
European Commission	Agents	UNEP, nat. govts, media & public
High	Predictability	Variable
Diff. inhibit inter-bloc trade	Market scope	Worldwide
EC-wide; prods must be cost-effective	Market type	Worldwide for enviro. technols.
End-of-pipe acceptable	Solutions	Minimisation at source preferred
Significant; a consideration	Cost	Greater, but an afterthought
Meeting standards	Business requirements	Image & standards

CHEMICALS

The relative economic stability of SW damps cyclical fluctuations. This climate fosters R&D, aiding innovation necessary to meet environmental standards and thus staving off encroaching maturity. Growth in Europe is thus greater than under GM, and estimated by the Sector as a fairly constant 3% pa to 2010.

In the SW scenario MNCs can site their operations where they are most efficient, thus promoting growth. Shell's R&D and manufacturing - concentrated predominantly in Europe, and with much of that in the UK - remains a sound arrangement. Increasing unification of markets favours locations where product transport costs are lowest.

The preoccupation with environmental concerns leads to qualitatively different requirements. There is little demand for high-performance engineering composites, but growth in structural materials improves energy conservation and transport efficiency. The focus for lubricants is efficiency rather than performance. Legislative and market pressures limit the use of solvents for cleaning and in paints. Phosphates in detergents are considered archaic. Less fruit is sprayed merely for cosmetic reasons, and insecticides which impact on pest predators and bird populations come under increasing pressure.

A major focus of the chemicals industry is waste treatment, and recycling of plastics becomes particularly important. The practicability of recycling products or their materials is a key factor in competition between polymers and metals or ceramics, and in choices between polymers. Ease of separation, to permit recycling, is considered at the design stage and there is a more limited range of polymers and their composites to facilitate recycling.

Production costs are relatively high in SW, but these are accepted when products and processes are perceived to be beneficial. The major reasons for the high costs will be substantial feedstock and energy costs, a business