

Rethinking Basic Assumptions...

The Ecologist

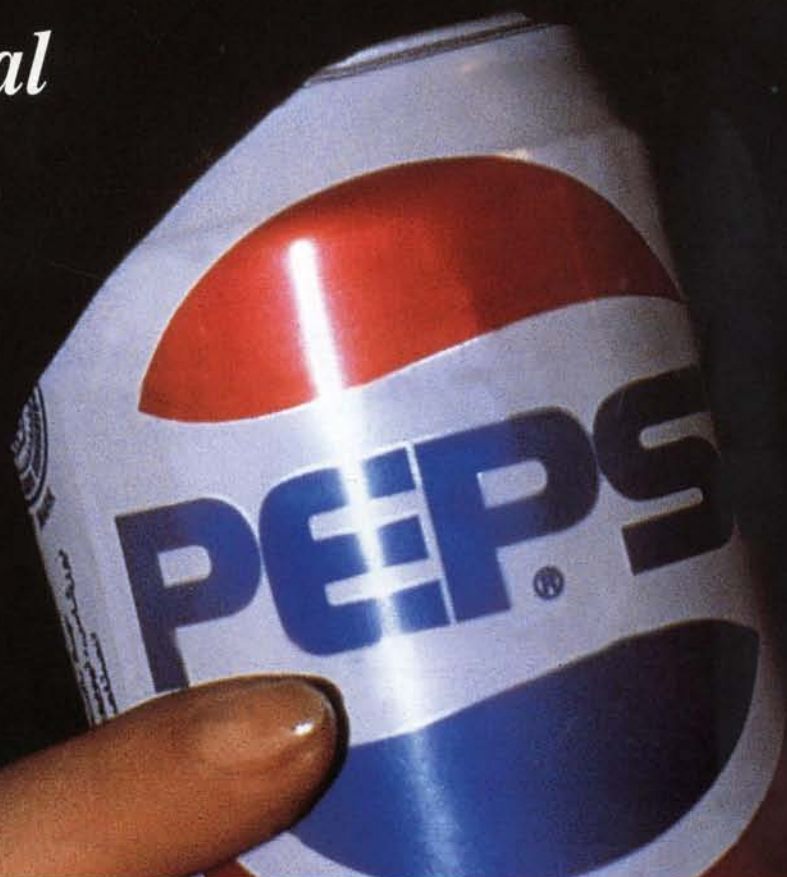
Volume 29 No 3. May/June 1999

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VOLUME 29 NO 3 MAY/JUNE 1999

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The Ecologist

is published by Ecosystems Ltd.

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Steven Gorelick, Helena Norberg-Hodge and John Page, who form the Ecologist's Board, are directors of the International Society for Ecology and Culture (ISEC). For more information about ISEC write to: The International Society for Ecology and Culture, Apple Barn, Dartington, Devon, TQ9 6JP, UK. Tel: +44(0) 1803 868 650; Fax: +44 (0) 1803 686 651, and PO Box 9475, Berkeley, CA 94708, USA. Tel: +1 (510) 548 4915; Fax: +44 (0) 510 548 4916.

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US Subscriptions:

The Ecologist/ISEC USA, 1920 Martin Luther King Jr. Way, Berkeley, CA 94704 USA. Tel: (510) 548 2032 Fax: (510) 548 4916.

Annual Subscription Rates:

The Ecologist is published monthly. The rates below are for ten issues, including postage and annual index.

£24 (US\$35) for individuals and schools;

£50 (US\$94) for institutions;

£18 (US\$28) concessionary rate (Subscribers in the Third World and Eastern Europe; unwaged - ID required).

Air mail £11 (US\$19) extra.

Concessionary rate only available from Shaunagh Cowell and not through other subscription agents. Subscriptions payable to *The Ecologist* and sent to the

Subscriptions address above. We welcome payment by UK£ cheque drawn on UK bank, US\$ check drawn on US bank, eurocheque written in UK£, banker's draft payable through a British bank, UK or international postal order, Access, Visa or MasterCard.

Advertising:

For information, rates and booking, contact the Editorial Office (contact details above).

Classified:

See inside back cover.

Contributions:

The editors welcome contributions, which should be typed, double-spaced, on one side of the paper only. Two copies should be sent with original. Word-processed contributions should be on a 3.5-inch disk (MS-DOS or Macintosh) in Microsoft Word or text file (ASCII) format. Illustrations (B/W or colour prints or transparencies, line drawings, tables, maps, etc.) should be included where appropriate. Detailed guidelines for contributors are available on request. Manuscripts should be addressed to the Editors and sent to the Editorial Office.

While every care is taken with manuscripts submitted for publication, the Editors cannot guarantee to return those not accepted. Articles published in *The Ecologist* do not necessarily express the views of the Editors.

Retail Distribution: Central Books, 99 Wallis Road, LONDON, E9 5LN, UK. Tel: (0181) 986 4854 Fax: (0181) 533 5821 and Lakeside Publishing Services Ltd, Unit 10, Tideway Industrial Estate, Kirtling Street, LONDON SW8 JBP. Tel: (0171) 720 6680 Fax: (0171) 498 9616 E-Mail: lakepubser@aol.com

The Ecologist International Serial Number is: ISSN 0261-3131.

The Ecologist is a member of the Independent News Collective (INK).

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The Ecologist is available on microfilm from University Microfilms International, 300 North Zeeb St. Ann Arbor, MI, USA.

Printed by The Friary Press, Dorchester, Dorset.

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INTRODUCTION

To open a newspaper today is to be confronted by an avalanche of ever-worsening crises – from runaway global warming to the extinction of species, from the destruction of cultures to rising job insecurity and poverty. The list is endless.

If we perceive these problems, as we are taught to, as isolated from one another, the task of tackling them can seem utterly overwhelming. However, when we see them as they really are, as diverse symptoms of the same root cause, the situation looks much less depressing. We can do something about it.

At the heart of our problems is an economic system that separates producers from consumers, alienates people from nature, and artificially favours ever larger and more unaccountable institutions over their smaller, more ecological competitors. It is a system that calls itself a 'free market', but which – very much like its communist counterpart – could not exist were it not for huge state subsidies, compromised politicians and a rejection of cultural and biological diversity.

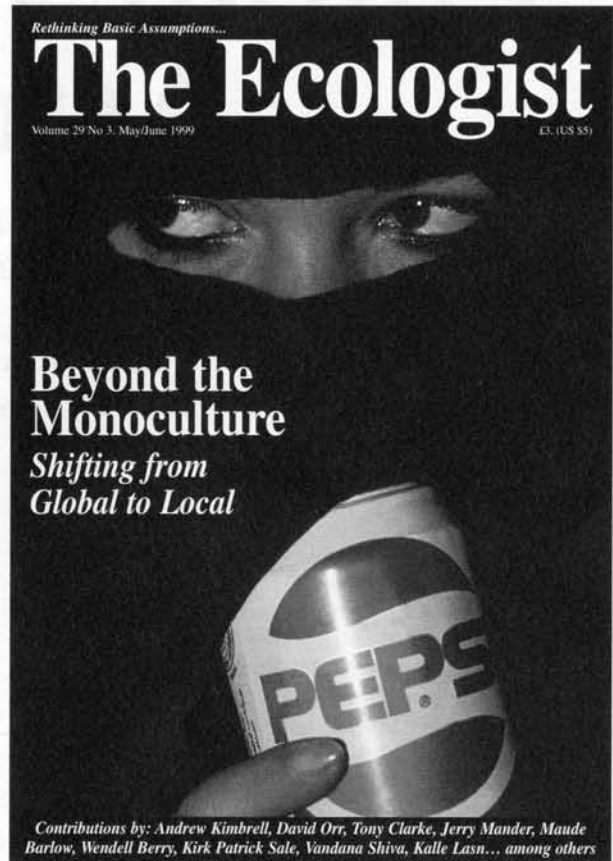
When we examine, as we attempt to in this special issue of *The Ecologist*, the internal logic and mechanisms underlying this near-global economic system, we find that there is almost no problem that is not being exacerbated by it. What's more, the global economy is undermining those things on which we truly depend, like community, family, clean air, food security and safe water. A multi-billion dollar advertising industry encourages young children to become voracious consumers; global warming is significantly increased by the massive distances goods are now transported to service global markets; the rapid extinction of species is the result, in large part, of the pursuit of 'efficiency' through standardisation.

Understanding the wide-ranging impact of economic globalisation can lead to a tremendously empowering and uplifting sense of the possible; the vast scale and diversity of our problems are made manageable by the recognition of their prime cause.

But what can we actually do?

On the one hand, we can pressure government to overturn and re-write the multilateral treaties which have been designed to increase the power of giant corporations. At the same time, we can work at the grassroots, helping to re-linking producers and consumers, and thereby bring the economy home.

Fortunately, more and more people are waking up to the fact that if we are to survive today's social and environmental crises, economic activity must be decentralised – and that such a shift is possible. Throughout the world, there is a tremendous upsurge in activism that is both resisting globalisation and seeking to rebuild much of what we have lost in the name of 'progress'. This movement is about conserv-



ing community, about providing our children with a sense of security and identity, about renewing our relationship with the natural world. It is about escaping from the conformity of the corporate monoculture and about encouraging diversity.

This special issue is part of that movement for change. It provides not only a critique of the global economy but a vision of social and ecological renewal.

This special issue of *The Ecologist* has been co-edited with Helena Norberg-Hodge, Director of The International Society For Ecology and Culture (ISEC).

A Monthly Ecologist

As from the release of this special issue of *The Ecologist*, we will be producing the magazine on a monthly basis, except during the January/February and August/September periods, when we will be producing combined issues. Subscribers will therefore receive ten issues of *The Ecologist* yearly. However, the cost of subscribing will not change in any way, (See subscription cards) meaning in effect that subscribers will receive almost twice the number of issues for the same price. The cover price has similarly been reduced to reflect these changes, (as displayed on the front cover of this issue), but at a more conservative rate, giving subscribers, on whom we depend almost entirely for our income, an advantage of UK£6 and US\$15 /year.

Empires Without Armies

The model of 'development' which has been foisted upon the 'Third World' for the last fifty years is strikingly similar, in both aims and outcomes, to the Imperial colonialism which preceded it. The aim of 'development' is not to improve the lives of Third World citizens, but to ensure a market for Western goods and services, and a source of cheap labour and raw materials for big corporations. Global Development is Imperialism without the need for military conquest. **By Edward Goldsmith**

The word 'development' was first used in its contemporary context by American President, Harry Truman, who in 1949 referred to the poor nations of the South as 'underdeveloped areas.' While the vocabulary may have been new, the assumptions behind it were not. As the French banker-turned-critic of development François Partant put it in 1982:

"The developed nations have discovered for themselves a new mission – to help the Third World advance along the road to development ... which is nothing more than the road on which the West has guided the rest of humanity for several centuries."¹

Partant was right. An examination of the situation in the Third World today reveals a disturbing continuity between the colonial era and the era of development. Patterns of land-use, government, and even national frontiers, imposed by European empires in the nineteenth century, have been largely maintained, with few attempts to revert to pre-colonial traditions, structures or paradigms. What Marxists refer to as "imperialism" and what Western governments today call "development" amount to much the same thing.

Same goals, Same Aim

If development and colonialism (at least in its last phase, from the 1870s onwards) are the same process under different names, it is largely because they share the same goal. That goal was explicitly stated in the 1890s by one of Britain's most successful colonialists, Cecil Rhodes:

"We must find new lands from which we can easily obtain raw materials and at the same time exploit the cheap slave labour that is available from the natives of the colonies. The colonies would also provide a dumping ground for the surplus goods produced in our factories."

Perhaps unsurprisingly, many countries, particularly in Asia, were not willing to let themselves be exploited in this way. But those who resisted were eventually bullied, either economically or militarily, into complying with Western demands. Two wars had to be fought with the Chinese before they would open their ports to British trade, and only the threat of an American naval bombardment of Japan persuaded it to open its markets to the West. By 1880, European powers had obtained access to the markets of most of Asia's coastal regions. Still though, commercial interests continued to demand ever more favourable conditions for European corporations.

Eventually, in China, as Harry Magdoff notes, Western activities largely "escaped China's laws and tax collections. Foreign set-

tlements had their own police forces and tax systems, and ran their own affairs independently of a nominally sovereign China" – a situation not far removed from that which exists today in the Third World's Free Trade Zones. "At the same time, the opium trade, which had been forced on the Chinese government militarily, was legalised, customs duties reduced, foreign gunboats patrolled China's rivers and foreigners were placed on customs-collection staffs to ensure that China would pay the indemnities imposed by various treaties."²

It was not only in Asia that force was used to advance the commercial interests of the West. In Egypt, Britain and France imposed the famous 'capitulations' on the Ottoman Sultan, providing concessions to foreigners operating within his empire: they could import goods at any price they chose, were largely exempt from taxes and were well capable of defending their interests. Throughout the non-industrial world, it was only when such conditions could no longer be enforced by the West – usually when a new nationalist or populist government came to power – that formal annexation was resorted to.

This is a key point: it is important to note that, as D. K. Fieldhouse put it, "colonialism was not a preference but a last resort."ⁱⁱⁱ D. C. Platt, another contemporary student of nineteenth-century colonialism, agreed, pointing out that no new colonies were created in Latin America in the late nineteenth century because a legal system "which was sufficiently stable for trade to continue was already in existence." In Africa this was not the case, and so the Western "scramble" for the continent, led by Rhodes, was necessary to establish colonial control.⁴

The Gospel of 'Free Trade'

Formal colonisation came to an end, then, not because colonial powers decided to generously grant freedom to their imperial subjects, but because the economic advantages of colonisation could now be provided more effectively by cheaper methods. This was clear to the foreign policy professionals and heads of large corporations who began meeting in Washington in 1939 under the aegis of the US Council on Foreign Relations, to discuss how to shape the post-war economy in their own interests.

In 1941, the Council formulated the concept of the "Grand Area" – that part of the world that the US would have to dominate economically and militarily in order to achieve its aims. It included most of the Western hemisphere, what remained of the British Empire, the Dutch East Indies (now Indonesia), China and Japan – and could be expanded as needed. Within this area, 'free trade'



was to be the means by which America's corporations would be provided with the export markets, cheap labour and abundant raw materials that they needed in order to succeed.

A century earlier, it was Britain that was preaching the free-trade gospel to the world, and for the same reasons. At that time, Britain dominated the world economy: a quarter of the world's terrestrial surface was under its direct control, its navy dominated the

An examination of the situation in the Third World today reveals a disturbing continuity between the colonial era and the era of development.

seas and London was the world's financial centre. According to the historian Eric Hobsbawm, Britain produced about two-thirds of the world's coal, perhaps half its iron, five-sevenths of its steel, half its factory-produced cotton cloth, 40 per cent (in value) of its hardware and slightly less than a third of its manufactured goods. Labour in Britain was also cheap and plentiful, as the population had more than trebled since the Industrial Revolution and had accumulated in the cities, with little regulation to protect the rights of workers.

In such conditions, Britain was incomparably more "competitive" than its rivals, and free trade was the best vehicle for achieving its commercial goals. As a result, between 1860 and 1873, Britain succeeded in creating something not too far removed from what Hobsbawm refers to as "an all-embracing world system of virtually unrestricted flows of capital, labour and goods", though clearly on nothing like the scale that this is being achieved today after the signature of the GATT Uruguay Round Agreement. Only the USA remained systematically protectionist during these years.

By the mid-1870s, though, Britain had lost its competitive edge over its rivals and, partly as a result, British exports declined considerably between 1873 and 1890, and again towards the end of the century. At the same time, between the 1870s and 1890s there were prolonged economic depressions, which weakened the belief in free trade. Tariffs were raised in most European countries, especially in the 1890s. Companies found their existing markets reduced by these factors, and started looking abroad to the markets of Africa, Asia, Latin America and the Pacific which, with the development of faster steamships, had become much more accessible.

As Fieldhouse notes, if free trade did not work, the answer was to colonise those countries where goods could be sold at a profit without having to worry about competition from more efficient European countries.⁵ A scramble for colonies followed, and by 1914, 84.4 per cent of the world's terrestrial surface had been colonised by Europeans.

Beads and Trinkets

The most effective means of ensuring a lasting colonisation of Third World countries is to set up a Westernised elite, hooked on a model of economic development which it is willing to promote regardless of the interests of the majority of its citizens. This has now been widely achieved, and the political/economic elites in many 'developing' countries are today effectively agents of the West.

The need to create such an elite was well-known to the colonial powers too. During the British debate after the 1857 Indian mutiny, the main question at issue was whether an Anglicised elite favourable to British commercial interests could be created in time to prevent further uprisings. If not, it was generally conceded, formal occupation would have to be maintained indefinitely.⁶

If an elite is to impose an alien model of economic development onto a population, it must be suitably armed, and today this is one of the main aims of the West's so-called 'aid' programmes. Recent years have seen countless examples of aid programmes tied to 'development' projects and to arms sales, and two-thirds of US aid to 'developing' countries takes the form of "security assistance". Most of the governments that have received security aid from the US in recent decades are military dictatorships such as those in Chile, Nicaragua, Argentina, Uruguay, Peru and Indonesia. They faced no external threats; it was not to defend themselves against a foreign invader that the security aid was needed, but rather to impose development onto a restless population which had already been impoverished by it.

Dealing with Mutineers

When a government unfavourable to Western interests succeeds in coming to power in the South, Western governments will go to any ends to remove it, as recent history has shown again and again. One of the most telling examples comes from the 1960s, when the US organised the military overthrow of the Brazilian government of José Goulart. Goulart had sought to impose a limit on the

amount of money foreign corporations could take out of the country. Worse still, he had organised a land reform programme which meant taking back control of the country's mineral resources from Western transnational corporations, and had given workers a pay rise, in defiance of International Monetary Fund orders. It did not take long for all US aid to be cut off, and for an alliance of the CIA, US investors and Brazil's landowning elite to organise a coup and install a military junta, which overturned Goulart's reforms.

Colonial powers, too, constantly sent troops to protect compliant regimes against popular revolts. Both France and Britain participated in the suppression of the Chinese Tai Ping rising, and later the Boxer rebellion. Britain also sent troops to help Khedive Ismail put down a nationalist revolt in Egypt. And Western powers still do not hesitate to do the same if there is no other way of achieving their goals. Thus the Gabonese dictator President Bongo is supported by the French government, after French paratroopers flew in in 1964 to restore his obedient predecessor to power in their former colony.⁷ Many more examples of similar Western interventions could be quoted.

Killing the Domestic Economy

In order to provide a significant market for their products, it was necessary for colonial powers to kill the domestic economies of the countries they colonised. The favourite method was to tax whatever it was the colonials particularly liked to consume, as there was no way locals could meet their tax obligations without working in the mines and plantations, or growing cash crops for their colonial masters.

At the same time, every effort was made to destroy indigenous crafts. So, for example, the British deliberately set about destroy-

"The liberty of democracy is not safe if the people tolerate the growth of private power to a point where it becomes stronger than that of the state itself. That, in essence, is fascism – ownership of government by an individual, by a group, or any controlling private power." – Franklin D. Roosevelt, Quoted in the *Corporate Crime Reporter*.

ing the Indian textile industry, which had been the very lifeblood of the village economy. And in French West Africa in 1905, levies were imposed on all goods which did not come from France or its empire, pushing up the prices of local goods and ruining local artisans and traders.

Economic development after the Second World War, on the other hand, was theoretically supposed to help the ex-colonial countries build up their domestic economies. Yet, at the very start, the ex-colonies were forced to re-orientate their production towards a very small range of exports.

Sugar is a typical example. Under World Bank influence, vast areas in the Third World were converted to sugarcane cultivation for export, regardless of whether a market existed for the product. In fact, the US has always applied strict sugar import quotas, and the EU subsidises sugar beet production amongst its member states. Yet still, 'developing' countries are encouraged to produce vast volumes of cheap export sugar.

At the same time, Third World countries which seek to diversify their production are accused of 'export substitution' – a heinous crime in the eyes of today's economists, and one which is explicitly prohibited by the terms of structural adjustment programme (SAP) loans. And as Walden Bello and Shea Cunningham note in their book *Dark Victory*, SAPs tend to increase a country's exports but contract its domestic economy.⁸

If Third World countries do succeed in developing a modest domestic economy, the West will set out to destroy it. The best example of this comes from the book *Development Debacle: The World Bank in the Philippines*.⁹ The book, based on 800 leaked World Bank documents, shows how that institution, in league with the CIA and other US agencies, deliberately set in motion policies to transform the rural peasantry into an urban proletariat, reduce the standard of living of the working classes by means of "wage restraint", destroy the local middle class and create a cosmopolitan, consumerist bourgeoisie dependent on the global economy.

This was achieved by providing the dictator Ferdinand Marcos with the funding to build up an army capable of imposing this programme onto his people by force. This he did, by declaring martial law and, as he himself put it, ensuring that he had "the authority necessary to implement new values, measures and sacrifices."¹⁰

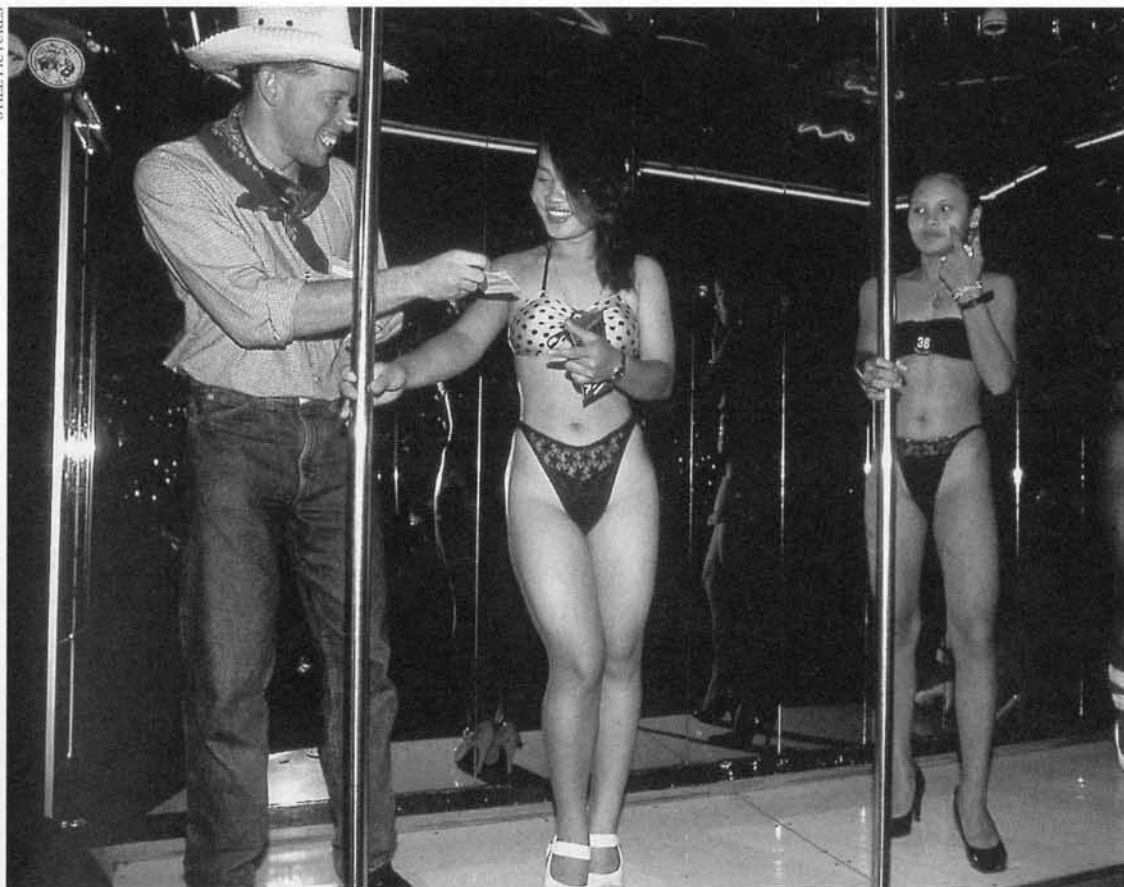
Lending Money

In order for the compliant elite of a Third World nation to be able to create the conditions for development, a large amount of funding is needed. For the West, lending money to those elites is the most effective means of ensuring that Third World development carries on along the 'right' lines.

If the government is to be capable of repaying the money it has borrowed from the West, or from one of its institutional creations such as the World Bank or IMF, the money must be invested in enterprises that are competitive on the international market, for interest payments must be paid in foreign exchange, usually US dollars. Unfortunately, this is unlikely to occur: in many borrower nations, anything up to 20 per cent of the money will be skimmed off in the form of kickbacks to politicians and officials, and much of the rest will be spent on useless consumer products, mainly luxury goods for the elite. More will be spent on vast infrastructure projects which will not generate a return for a very long time, if at all, and on armaments to put down any uprisings caused by devel-



JOHN PAGE



Development Debacle is based on 800 leaked World Bank documents and shows how that institution, in league with the CIA and other US agencies, deliberately set in motion policies to transform the rural peasantry of the Philippines into an urban proletariat, destroy the local middle class and create a cosmopolitan, consumerist bourgeoisie dependent on the global economy. Similar policies have transformed places like Thailand into little short of sex outlets for Western businessmen.

opment. The result is that Third World countries which borrow from the West almost always fall into unrepayable debt.

Once in debt, they become hooked on further and further borrowing, thus falling under the power of the lending countries. At this point the latter, through the IMF, can institutionalise their control over a debtor country by Structural Adjustment Programmes (SAPs) which in effect take over its economy to ensure that interest payments are regularly met. Result: borrowing countries become *de facto* colonies of the West.

This technique, too, was used in the colonial era. In Tunisia, in the mid-1800s, a lot of money was lent to the Bey of Tunis to build up an army to loosen his ties with Turkey – not a profitable investment, and one which soon led him into debt. The French government, which had overseen the lending of the money, then subjected the Bey's economy to 'financial supervision', a key feature of which was that the French government had the right to collect and distribute the state's revenues, to assure that the French shareholders who had lent the money took precedence over all other debtors. President Clinton recently imposed a similar deal on the Mexican government as a condition for lending it the billions of dollars required to bail out its Wall Street creditors.

Today, the West has perfected the technique of lending money to Third World countries as a means of controlling them. Much of it, as we have already seen, goes euphemistically under the name of "aid" – something which is said to be necessary to tackle Third World poverty, which itself is said to be a symptom of "underdevelopment". The solution to Third World poverty, then, is more development, more investment in capital-intensive developments, more foreign corporations and fully open markets – precisely what the West can provide. Cheryl Payer quotes Galbraith on this situ-

"A really efficient totalitarian state would be one in which the all-powerful executive of political bosses and their army of managers control a population of slaves who do not have to be coerced, because they love their servitude." – Aldous Huxley

ation: "having the vaccine, we have invented smallpox."xi We have recently seen the result of that disease, and the faulty vaccine, in the collapse of the Eastern 'Tiger' economies, which borrowed and overspent to a massive degree in order to keep up a frantic pace of Western-style development.

Colonialism Today

We have seen, then, how the 'Third World' has been controlled and directed for several hundred years by a Western elite; firstly under direct colonial rule, and then by the imposition of a 'development' paradigm which, for various institutional, political and economic reasons, it has been powerless to resist. We have also seen how the present global economic system was set up, and is maintained, in order to prolong that Western corporate control. In the following article, Tony Clarke demonstrates clearly how populations in the North as well as in the South remain under the control of global corporations. He will show conclusively that, even as the 21st century dawns, colonialism is alive and well.□

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Twilight of the Corporation

In the last decade or so, the transnational corporation has virtually supplanted the nation state as the central institution dominating the lives of people in most parts of the world. By creating a global market system that now spans the four corners of the planet, the transnational corporation has moved into the very centre of our history as a dynamic colonial force re-shaping the destiny of peoples and nations. Larger and more powerful than anything before, these corporations now hold the reins of power more firmly than do many of the world's governments. **By Tony Clarke.**

There is nothing really new about naming corporations as agents of colonialism. After all, the original forms of what we call today transnational corporations (TNCs), were huge exploration enterprises like the East India and the Hudson Bay companies which were granted royal charters by European states to expand their empires by conquering new lands and markets in Africa, Asia and the Americas during the 16th and 17th centuries. What is new today, however, is that transnational corporations now wield more economic and political clout than the vast majority of nation states, not only in the so-called developing countries of the South but in the industrialised West as well.

In less than 20 years, the number of globe-spanning corporations has jumped from seven to over 45,000, a 650 per cent

Today, 52 of the top 100 economies around the world are transnational corporations rather than nation states. Mitsubishi is bigger than Indonesia (the Earth's fourth most populous country), General Motors is larger than either Denmark or Norway, Daimler-Chrysler now outstrips South Africa and Saudi Arabia, and Siemens' yearly income is greater than Ireland's or Chile's.

increase. Today, 52 of the top 100 economies around the world are transnational corporations rather than nation states. Mitsubishi is bigger than Indonesia (the Earth's fourth most populous country), General Motors is larger than either Denmark or Norway, Daimler-Chrysler now outstrips South Africa and Saudi Arabia, and Siemens' yearly income is greater than Ireland's or Chile's. Indeed, the combined annual revenues of the biggest 200 corporations is greater than those of 182 nation states which, in turn, are responsible for the livelihood of over four-fifths of humanity on this planet.

Yet, what is perhaps most striking about the global corporation today is not just its vast economic clout but the way it penetrates and controls the social, cultural and political lives of peoples and nation states. Since the collapse of the Berlin Wall ten years ago, symbolising the triumph of capitalism over communism, the transnational corporation has essentially supplanted the nation

state as the central institution dominating the lives of people in most parts of the world. By creating a global market system that now spans the four corners of the planet, the transnational corporation has moved into the very centre of our history as a dynamic colonial force re-shaping the destiny of peoples and nations.

Colonial Machines

As Edward Goldsmith demonstrated in the previous article, colonial forms of development are alive and well today. According to the 1998 United Nations Human Development Report, the income disparity between the top 20 per cent and the bottom 20 per cent of the world's population is now 150 to 1, double what it was 30 years ago. The 225 richest individuals on this planet, most of whom are the heads of powerful transnational enterprises, have a combined wealth equal to the annual income of half of humanity. As the *Guardian* put it in response to a question about the difference between Zambia and Goldman Sachs: "One is an African country that makes 2.2 billion a year and shares it among 25 million people. The other is an investment bank that makes 2.6 billion and shares it among 161 people."

In the South today, transnational corporations continue to operate as colonial machines by producing and re-producing inequality and dependency. Foreign direct investment through TNCs has replaced the World Bank, the International Monetary Fund and foreign aid by governments as the main source of capital for economic development. Structural adjustment programmes imposed by the World Bank since the 1980s in exchange for debt relief has made it easier for TNCs to manufacture products for export, extract valuable natural resources, obtain generous investment incentives, take advantage of cheap labour conditions, redirect local production priorities, and endlessly repatriate profits, unfettered by government intervention or regulation.

In an age of economic globalisation, however, transnational corporations function as colonial machines in the West as well as in the South. The fact that TNCs can move their operations from one country to another at a moment's notice for more profitable investment opportunities has taken its toll in terms of lowering real wages, environmental safeguards, corporate tax revenues, local development priorities and social security in most northern industrialised countries. For the most part, foreign-based corporations are no longer obligated to meet performance standards (for example, local job creation quotas, quotas on natural resources) while domestic corporations which have gone global have largely

abandoned their national/local responsibilities in favour of larger markets and lower production costs elsewhere (including over 800 free-trade zones around the world where no requirements to meet labour, social, and environmental standards exist).

At the same time, TNCs are exercising increasing control over the social and ecological lives of peoples in the West. After two decades of deregulation and privatisation, corporations are now moving in to take over social priorities on a for-profit basis that used to be the public responsibility of the state in many countries, such as health care, education, social security, and criminal justice. "Growing-up corporate" as Ralph Nader calls it, is becoming a way of life. Bio-technology corporations are radically altering the food chain with genetically engineered products while chemical industries continue to poison the atmosphere with toxic wastes, big timber companies clear-cut the planet's remaining forests, deep sea trawlers scrape the ocean floor depleting fish stocks, and corporations make plans for profitable investments in bulk water exports.

But, perhaps the most significant colonial development has been the corporate takeover of democratic life in the West. In the capital cities of Europe, Japan and North America, TNCs have become sophisticated political machines. Armed with a battery of policy research institutes, big business lobbying machinery, legal and public relations firms, and political advertising apparatus (not to mention lucrative donations to political parties as an insurance policy), corporations are able to determine, if not dictate, government legislation and policy making on a wide range of economic, social, and environmental issues. Through this process, basic citizens' rights have been hijacked by vested corporate interests while growing numbers of people and their associations have become politically disenfranchised.

Corporate Rule

Yet, this is only part of the picture. As neo-colonial machines, TNCs have, to an increasing degree, been invested with the authority to govern and rule. From their outset, corporations have been given the sanction to operate by the Crown or the State. The first TNCs commissioned to find valuable resources in the New World were initially given royal charters by the monarchies of England, France, Spain, Portugal and the Netherlands. Following in this tradition, governments continued to give corporations the legal permission to operate by granting charters and licences of authority. Without a charter or licence, essentially no corporation has the legal right to own property, borrow money, sign contracts, hire or fire, accumulate assets or debts.

At the same time, this corporate authority has been further consolidated by changes in legal doctrine through the courts. Under both national and international law, corporations achieved legal status as "persons" and "citizens" with political rights. Moreover, this was a first-class citizenship which gave corporations more protection over property rights, declaring that corporate contracts



"The world is now ruled by a global financial casino staffed by faceless bankers and hedge-fund speculators who operate with a herd mentality in the shadowy world of global finance."

— David Korten, former World Bank official.

and the rate of return on investment were property that could not be meddled with by citizens or by their elected representatives. Not only do corporations have legal rights and protection when it comes to market transactions such as the buying and selling of property or their products, but also free speech in the form of political advertising as well as the right to sue for injuries, slander or libel. In the US, corporations were also granted "eminent domain" under the law, with the result that jury trials were eliminated for determining whether corporate practices cause harm or injury and, if so, what damages should be assessed.

Without the state, however, corporations would neither have sufficient authority nor the legitimacy required to govern or rule, especially in democratic societies. To obtain this authority, global corporations in the West began to focus their energies on restructuring the role of governments to more directly serve the interests of transnational investment and competition. As far as big business was concerned, the Keynesian social welfare state, which had been built up in the industrialised West and parts of the South since World War II, had become the main obstacle. After all, the Keynesian model of government (named after the British econo-

mist, John Maynard Keynes) was designed to intervene in the market-place to ensure that it operated on behalf of the common good or the public interest.

Starting with the Trilateral Commission 25 years ago – whereby David Rockefeller brought together 325 Chief Executive Officers (CEOs), presidents, prime ministers, and senior government officials from Europe, Japan and North America – a strategy was put in place to dismantle and replace the Keynesian state. Subsequently, big business coalitions like the European Round Table of Industrialists and the US Business Round Table were formed primarily to reorganise the role and functions of governments to

Now, the prime role of governments is to provide a secure place and climate for profitable transnational investment and competition. In other words, security for investors, but not for citizens.

respond to the interests of transnational capital and the new global market discipline. With the Thatcher and Reagan governments of the early 1980s, the social welfare state was gradually dismantled and has since been replaced by the 'security state'. Now, the prime role of governments is to provide a secure place and climate for profitable transnational investment and competition. In other words, *security* for investors; but not for citizens.

Imperial Order

By the same token, it was equally imperative for the CEOs of the world's leading TNCs to consolidate their authority and power in relation to the major institutions of global governance. In the early 1980s, the UN Centre for Transnational Corporations, which had been established to monitor the operations of TNCs and develop an international code of conduct, was effectively dismantled in response to mounting pressure by the corporate elite in the US and other major industrialised countries. During this period, the so-called Washington Consensus calling for the liberalisation of trade, investment and finance was vigorously promoted through the Bretton Woods institutions, namely, the GATT, the IMF and the World Bank.

The turning point, however, came with the creation of the World Trade Organisation (WTO) in 1994. Crafted behind closed

An Economic Constitution for the Planet

When the Canada-US Free Trade Agreement was concluded, President Reagan described it as the "economic constitution of North America". Recently the director general of the World Trade Organisation (WTO), Renato Ruggiero, used similar language to describe the WTO. Like constitutions, trade agreements set out the fundamental rights of their constituents. But these "economic constitutions" have been negotiated behind closed doors with little if any input from any sector other than business. It isn't surprising then, that under the WTO only corporations are the beneficiaries of the rights it creates, and the interest of others in society are nowhere to be found. – *Steven Shrybman, the World Trade Organisation: A Guide for Environmentalists*

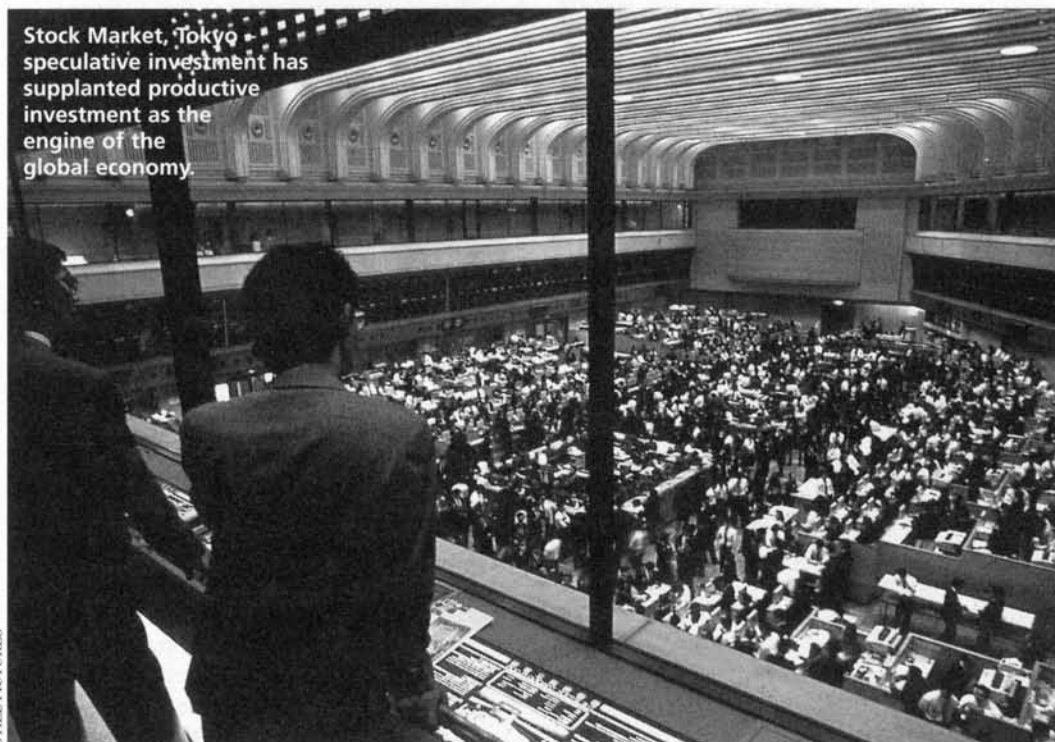
doors by trade bureaucrats and corporate lobbyists, the WTO was designed to become eventually a global governing institution regarding trade, investment and finance. To carry out its mandate, the WTO was given not only judicial powers to adjudicate trade disputes, but also legislative powers. Under the WTO, a group of unelected trade officials would, in effect, have the power to override economic, social and environmental policy decisions of nation states and democratic legislatures around the world.

Any country that decides, for example, to ban the export of raw logs as a means of conserving its forests, or ban the use of carcinogenic pesticides, can be charged under the WTO by member states on behalf of their corporations for obstructing the free flow of trade and investment.

Any country that decides, for example, to ban the export of raw logs as a means of conserving its forests, or ban the use of carcinogenic pesticides, can be charged under the WTO by member states on behalf of their corporations for obstructing the free flow of trade and investment. A secret tribunal of trade officials would then decide whether these laws were "trade restrictive" under the WTO rules and should therefore be struck down. Once the secret tribunal issues its edict, no appeal is possible. The country convicted is obligated to change its laws or face the prospect of perpetual trade sanctions.

Although the WTO was initially organised to focus on trade, its centrepiece was to be a global investment treaty. In December 1996, the now outgoing director general of the WTO, Renato Ruggiero, declared that the establishment of a global investment treaty in the WTO was the same as developing a constitution for

"We are writing the constitution of a single global economy... the question is where – not whether – work or trade and investment would take place" – *Renato Ruggiero*





Surui Amerindians are a remnant tribe devastated by road construction. If current trends continue, the world's few remaining forests will be entirely decimated within decades.

the global economy. But it was the Organisation for Economic Co-operation and Development (OECD), the "rich nations club" of the 29 top industrialised countries, that began negotiating a Multilateral Agreement on Investment (MAI), which was to have been brought back to the WTO and imposed on the developing countries of the South.

Building from a blueprint drafted by the International Chamber of Commerce, the MAI was originally designed to grant sovereign powers to TNCs that were equal to, if not greater than, nation states in the global economy. Not only was the MAI crafted as a "corporate bill of rights" with a body of rules and disciplines to protect foreign investors and their investments, but it gave corporations themselves the power tools to enforce these rules. Under the investor-state mechanism of the MAI, foreign-based corporations would have the power to sue governments directly for alleged violations of the investment rules, thereby ratcheting down any unwanted laws, policies or programmes.

Global Casino

By officially suspending negotiations on the MAI in December 1998, however, the OECD effectively handed back to the WTO the task of establishing a global investment treaty. While this dramatic turn of events was due, in part, to widespread public opposition against the MAI mounted by civil society groups in many OECD countries, the financial meltdown in Asia was also a major causal factor. The sudden collapse of South-east Asian currencies in late 1997 created the worst economic chaos of the past quarter-century as millions lost their jobs, prices skyrocketed, bankruptcies soared and real wages were slashed.

As the financial crisis spread to Russia and then on to Brazil, governments involved in negotiating the MAI became increasingly nervous about the further erosion of their economic sovereignty. After all, the Asian financial meltdown had been primarily triggered by speculators engaged in fly-by-night investments and the inability of governments to regulate sudden movements of capital flows in and out of their countries. The MAI would have put a set of handcuffs on governments, prohibiting them from regulating capital flows in order to mitigate against the destabilising effects of speculative investments on their economies.

Indeed, the global economy today is largely fuelled by a financial casino in which most investors have become speculators or gamblers. Instead of buying long-term shares in companies for the production of goods and services, investors now put most of their money in mutual funds where they can speculate or gamble on fluctuations in prices or the value of currencies. Speculative investment, in other words, has supplanted productive investment as the engine of the global economy.

With one keystroke, currency traders can move vast sums of money around the world instantaneously, speculating on price fluctuations in money markets on a 24-hour basis. The power of these speculators was dramatically illustrated in 1992 when financier George Soros, following a bet with then UK Prime Minister John Major, sold \$10 billion worth of British pounds on international money markets for a \$1 billion profit and, in doing so, single-handedly managed to force a devaluation of the pound and scuttle a new proposal for an exchange rate system in the European Union at the same time.

As writer David Korten, a former World Bank official, describes it: "The world is now ruled by a global financial casino staffed by faceless bankers and hedge-fund speculators who operate with a herd mentality in the shadowy world of global finance." "Each day," says Korten, "they move more than two trillion dollars around the world in search of quick profits and safe havens, sending exchange rates and stock markets into wild gyrations wholly unrelated to any underlying economic reality. With abandon they make and break national economies, buy and sell corporations and hold politicians hostage to their interests."

In turn, this global casino is largely responsible for the recent wave of corporate merger mania. In 1998, corporate mergers skyrocketed to record levels of \$1.2 trillion, including nine of the top ten of all time (for example the Exxon-Mobil merger in the energy sector). With every new merger and acquisition, stock prices climb, thereby giving corporations more cash to buy up competitors. A vicious cycle of continuous mergers and acquisitions is generated. In the long term, however, most mergers do not result in productive gains and stock prices tend to be overvalued, thereby creating an "asset bubble". When shareholders, particularly speculative investors, fail to see the gains, the bubble is likely to burst with profoundly negative economic consequences.

As we move into the 21st century, the time has come for citizen movements to focus their energies on this new corporate colonialism. Only by tackling the corporate power that is the driving force behind both the nation state and economic globalisation today, will we be able to build a truly common struggle, North and South, for democratic social change. □

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CORPORATESPEAK

"Since there are over 14,000 McDonalds world-wide, we figure there will be at least one thing in the US to make the rest of the world feel at home."

— McDonalds, 1993

Tipping the Scale: Systemic Support for the Large and Global

Part and parcel of the process of economic globalisation has been the destruction of the small, diverse and local by the large, homogenous and global. The negative effects of the process have been experienced by all but a few of the world's people, yet opposition to this process is inevitably met with the line that it is somehow 'evolutionary', and consequently beyond our control. But, as the author explains, this is not true: "corporate and therefore human hands have been everywhere in the globalising process, designing it, guiding it, and taxing the public to pay for it. It has been codified into government policy at almost every level, and the support it receives is deep and systemic." **By Steven Gorelick.**

The history of the latter part of the 20th century is a story of the triumph of the large over the small. Large scale has steadily supplanted small scale, and this scaling-up is closely linked to globalisation – shorthand for the relentless expansion of the Western industrial model. It has expressed itself in several interrelated ways:

- Urban areas have grown exponentially, while rural life has become increasingly marginalised. By the late 1990s, there were 20 more cities with populations over 10 million than there were just 30 years earlier.¹ At century's end more people live in urban areas than rural, for the first time in human history.

- In the West especially, small-scale family farms all but disappeared, their lands absorbed into industrial-scale agribusinesses. In the United States, where the farm population is already less than 3 per cent, small farms are still going under at a rate of more than 30,000 each year.² The UK has been on a similar pace, losing half its farms between the end of World War II and the 1990s.³ The same process is now under way in the South: China's farm population, for example, declined from 92 per cent in 1975 to less than 40 per cent in 1994, and is still dropping rapidly today.⁴

- Small-scale producers and local marketers have had to struggle to survive, while transnational corporations have expanded phenomenally – some becoming economically larger than entire nations. Symptomatic of these developments is the disappearance of corner shops and locally-owned businesses, and the spread of huge corporate hypermarkets and 'big box' stores on the edges of towns. These trends are most pronounced in the United States, but are happening elsewhere as well: in Italy, for instance, *ipermercati* superstores have destroyed 370,000 small, family-run businesses in less than a decade.⁵

- Within the business world, scaling up has accelerated, with mammoth corporations seeking to grow still larger by gobbling up or merging with competitors. By 1997, mega-mergers involving American companies were being recorded at a pace of over a trillion dollars annually.⁶

- Thousands of local cultures have been erased, the ultimate victims of colonialism, development. In Brazil alone, 90 different tribes disappeared during the 20th century; in North America over 50 languages became extinct in just 30 years.⁷ As the century closes, a steady regimen of advertising, Hollywood movies, satellite television, and the internet is homogenizing what remains of the Earth's diverse cultures, helping create a single global consumer culture.

Taken together, these changes amount to a stunning reshaping of human societies everywhere on Earth. It is difficult to disagree with Jerry Mander's conclusion that the globalising process "is as historically significant as anything since the Industrial Revolution."

Why is this happening? In contemporary mythology globalization is closely associated with the advance of democracy and freedom. This leads one to assume that people everywhere have consciously decided to dismantle their small farms and local businesses, hand over control of their local economies to distant corporations and anonymous bureaucrats, and abandon their cultural identities in favour of the global McDonalds' culture. Needless to say, this is largely untrue. From the Indian peasants that ransacked Cargill warehouses and are campaigning against Monsanto, to the French farmers who blocked highways and dumped manure in the streets of Paris to protest about GATT, to the U'Wa and other indigenous cultures fighting to retain their ancestral lands, people the world over continue to struggle against the juggernaut of the large and global.

Despite the democratic rhetoric, nowhere has there been a referendum or vote in which citizens have clearly consented to this radical reshaping of social, economic and political life.*Furthermore, nowhere have people even been informed of the changes being imposed and their full implications. Instead, governments and the media have painted a distorted picture of globalisation,

* In Europe, the country-by-country vote on the Maastricht Treaty was the closest thing to such a referendum. Thanks to the political, economic, and media clout of the pro-Maastricht forces, however, these elections rarely focussed on the overall picture. Nonetheless, the Norwegians and Danes did vote NO. Having decided counter to the pre-determined outcome, the Danes were then required to vote again.

highlighting its supposed benefits and glossing over its painful costs. In many cases, the destruction of local economies and cultures has been accomplished via a process of 'development' over which local people have no real control.

This lack of consent is usually explained away by another myth of globalisation, which portrays the growth of the large and global as the unstoppable product of historical forces beyond human control. According to this view, a fully globalised economy dominated by transnational corporations (TNCs) is destiny; it is evolution; it is inevitable.

This notion, too, fails to stand up to close scrutiny: human hands and minds have been everywhere in the globalising process, designing it, guiding it, and taxing the public to pay for it. It has been codified into government policy at almost every level, and the support it receives is deep and systemic.

A major element of that support arises from the institutions founded by the industrial powers at the Bretton Woods conference in 1944 – the World Bank, the International Monetary Fund, and the General Agreement on Tariffs and Trade – as well as the various treaties that have followed – NAFTA, the Maastricht Treaty, the WTO, MAI, etc. All of those treaties and institutions seek to maximise international trade, to mould local economies worldwide to fit the shape of the industrial model, and to shift the locus of economic power from communities and local economies to the large corporations that now dominate the global economy.

This aspect of the driving force behind globalisation has been well documented. A less often acknowledged but equally important component is the systemic support given to the large and global through the building up – at public expense – of an infrastructure tailored to the needs of the largest corporations. Those expenditures are usually justified in terms of individual mobility, freedom, convenience, safety, and so on. But their real function is to promote a particular vision of the future: one in which every society is dependent on a single, high-tech, energy-intensive, consumer economy, and in which a relative handful of large corpora-

tions produce and market the needs of people everywhere. By their infrastructure choices, governments are helping to make that vision a reality. Diverse, small-scale economic alternatives may be more equitable, democratic, job-producing, and sustainable, but governments do not fund infrastructures appropriate to those economies. This bias toward the largest businesses and those operating on a global scale is a major reason the small and local are consistently on the decline.

Today, infrastructure investments are funnelled into a number of key areas:

- Large-scale, long-distance transport infrastructures – motorways, high-speed rail links, airports and shipping terminals – are prerequisites for a globalised economy heavily dependent on trade. Thus, though the United States has the most advanced and extensive transport infrastructure in the world, hundreds of billions more are being spent each year on further expansion. This is because "improving access to markets worldwide... will provide the foundation for American businesses to flourish in the 21st Century," according to US Transportation Secretary, Rodney Slater. By "American businesses", you can be sure Slater had companies like Archer Daniels Midland, Wal-Mart and General Motors in mind, not small farms, corner shops and local artisans. Long-distance, high-speed transport infrastructures do little to meet the needs of participants in diverse, localized

CORPORATESPEAK

"Yet on any day, McDonalds serves less than one half of one per cent of the world's population. No matter how you calculate it, our global market share – which continues to increase – is not large enough, and we won't leave opportunity on the front counter for the competition."

– McDonalds, Annual Report



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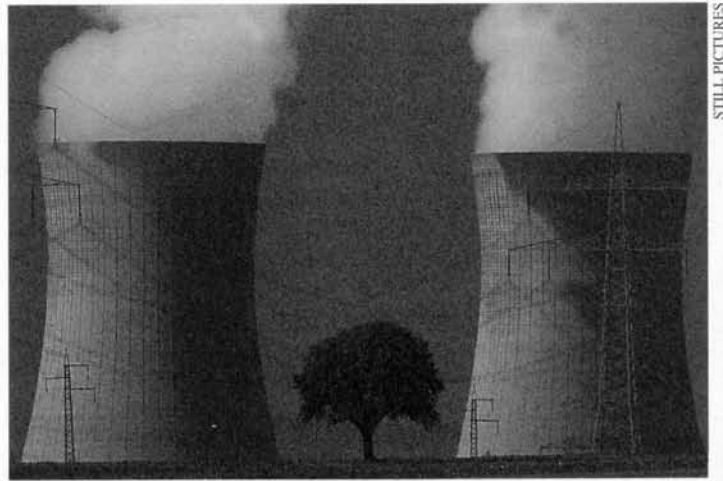
STILL PICTURES

"I see in the near future a crisis approaching that unnerves me and causes me to tremble for the safety of my country. As the result of the war, corporations have been enthroned . . . An era of corruption in high places will follow, and the money power of the country will endeavour to prolong its reign by working upon the prejudices of the people until wealth is aggregated in a few hands... and the republic is destroyed." – *US President Abraham Lincoln*

economies; instead they undermine those economies and the communities that depend on them by enabling goods to flood into local markets at artificially low prices. It is only because of such subsidies, for example, that butter transported all the way from New Zealand can be 'cheaper' than local butter in Vermont, home to hundreds of struggling dairy farmers.

- Unlike producers and sellers in local markets, TNCs require extensive communications networks to monitor and co-ordinate their global enterprises, and to facilitate rapid flows of capital into and out of distant markets. These networks serve global corporations in another way as well. While their output is generally portrayed as furthering the 'free flow of information', that flow is decidedly one-way: worldwide communication facilities make it possible to transmit the world-view of consumerism – via movies, television programming and direct advertising – thereby helping to homogenise diverse populations into masses of similar consumers with similar desires. When television programmes like *Dallas* and *Baywatch* are broadcast throughout the South, for example, people's distorted impression of modern urban life – fast, glamorous, exciting, wealthy beyond measure – leaves them vulnerable to the empty promises of Western-style 'development', and hungry for the consumer products that seem to define modern life. "Once television is there", the CEO of a large American TNC pointed out, "people of whatever shade, culture, or origin want roughly the same things."⁸

- Large-scale, centralized energy installations – nuclear power plants, huge hydroelectric dams, fossil fuel facilities, and similar projects – are a necessity in a global economy predicated on growth, consumption and the long-distance transport of virtually every commodity. The growth imperative impels even the North constantly to expand its already massive power infrastructure, but most of the new construction is in the South, where an estimated trillion dollars worth of large-scale plants will be needed to integrate fully those countries into the global economy.⁹ Meanwhile, dispersed and locally available energy sources such as solar, wind and small-scale hydro – all of which are well suited to small and localized economies – are effectively ignored.



STILL PICTURES

Large-scale, centralized energy installations are a necessity in a global economy predicated on growth, consumption and the long-distance transport of virtually every commodity.

- Portrayed as an unequivocal good, modern educational infrastructures are heavily funded in almost every country. Unfortunately the knowledge dispensed in such schools leaves children largely unprepared to participate in an economy based on their own environment, resources and cultural history [see "Education for Globalisation" by David Orr in this issue]. Instead, schools mould children everywhere for future roles in the global economy: as high-tech workers, as corporate managers or paper-pushers, as telemarketers or dispensers of fast food, and of course as consumers. In industrialised countries, this form of education begins long before children ever set foot in a school: parents in the United States, for instance, are putting their children in front of computers and 'educational' television programmes by the age of one, or even younger. The consequence is predictable: most American children are unable to identify more than a few local plant species, but "even two-year-olds are concerned about their brand of clothes, and by the age of six are full-out consumers", according to a specialist in marketing to children.¹⁰

- Research infrastructures provide industry with technological innovations to raise productivity, to keep levels of consumption growing, and to draw ever more resources from the planet. 'Techno-fix' solutions to the problems caused by the industrial system are also sought, thus masking the long-term unsustainability of the entire model. Studies have shown that most of the research needed by large-scale producers and marketers is done at public expense. While such research is "a fundamental pillar of industrial advance"¹¹, almost no research is done that would provide people with the means to use local resources within diverse, more localised, and smaller-scale economies. There can be no better example of the thrust of publicly-funded research than the 'Terminator' technology, a bio-engineered trait which renders seeds infertile in the second generation (see "*The Monsanto Files*", *The Ecologist*, Vol.28 No.5). Perfectly suited to the needs of agricultural biotech corporations, the technology could prove disastrous to the millions of small farmers who have always saved seeds from one year's harvest for planting the next. This technology was jointly developed by a large seed company and the US Department of Agriculture, and is now in the hands of the Monsanto Corporation.¹²

- A military infrastructure is needed to keep the less stable elements of the global architecture in place, and to guarantee access to the natural resources on which the model depends. Even ardent globalisation proponent Thomas Friedman agrees: "The hidden hand of the market will never work without a hidden fist – McDonald's cannot flourish without McDonnell Douglas, the



JOHN PAGE

Long-distance, high-speed transport infrastructures do little to meet the needs of participants in diverse, localized economies; instead they undermine those economies and the communities that depend on them by enabling goods to flood into local markets at artificially low prices.

builder of the [Stealth Bomber]. And the hidden fist that keeps the world safe for Silicon Valley's technologies is called the United States Army, Air Force, Navy and Marine Corps."¹³ 'Keeping the world safe' for global corporations does not come cheap: just ensuring the steady supply of oil – a prerequisite for long-distance transport – is estimated to cost US taxpayers \$57 billion annually. For the targets of military power worldwide, obviously, the costs of globalisation are much higher.

• • •

A further form of systemic bias towards the large and global comes in the guise of regulations that purport to protect the environment and public health. As well-intentioned as these regulatory regimes may be, they have largely failed in their mission. In part this is because of the 'revolving door', which riddles regulatory bodies with past and future employees of the industries they are supposed to regulate. (see for example Jennifer Ferrara, "Revolving Doors: Monsanto and the Regulators", *The Ecologist*, Vol.28 No.5, Sept/Oct 1998).

Another reason is that in their attempts to regulate industry, governments are like dogs chasing their own tails: on the one hand they are vigorously encouraging industry to develop new products

The global economy and the corporations that dominate it are not the product of evolution. Instead they are the result of many years of direct and hidden subsidies.

and processes, on the other they are frantically attempting to limit the resulting harm. Even if they were not watered down during the intense lobbying efforts of regulated industries, regulations simply cannot keep up with the current pace of technological change. Each year, for example, 1,000 new chemicals enter commercial markets in the United States; meanwhile the National Toxicology Program, the agency responsible for assuring the safety of these chemicals, can only manage to conduct testing on 25 of them annually.¹⁴

Though Big Business generally does the most complaining about 'red tape', many regulations would be unneeded were it not for the scope and scale at which large corporations now operate. A study by the US Center for Disease Control, for instance, points out that large outbreaks of food-borne disease are more likely today because of the trend toward fewer, bigger food production facilities and longer-distance distribution.¹⁵ Since the scaling-up of the food production system is itself never questioned (and is no doubt assumed to be 'inevitable'), the response is tighter regulation and still more technology – at greater cost to the public. Thus, outbreaks of salmonella and e. coli poisoning in the meat industry have provided the rationale for approving nuclear irradiation as a sterilizing process. This technology itself has the potential for serious accidents, and will require further layers of publicly-funded regulation.

If the need for regulation is largely a consequence of large-scale industrial processes, it is small producers that ultimately bear the heaviest regulatory burden. Health problems from small-scale food production for local consumption are relatively few and far between. But regulations needed because of large-scale production and long-distance marketing are applied to small producers of every kind. The EC directive demanding that cheese producers install tile floors and stainless steel kitchens, for example, is putting small farm-based cheese makers out of business; similar rules in the US nearly put an end to the selling of traditional cured hams in southern states, while rules favouring pasteurised apple cider will likely spell the demise of hundreds of small-scale cider makers in the north-east. As usual, the markets of these small, local producers will be taken over by larger, more highly capi-

talised producers that can more easily absorb the costs of satisfying the regulations.

Another benefit of regulations to large producers comes with the stamp of approval regulatory agencies give to industrial processes and products. However flawed the approval process, it nonetheless serves to calm the public's understandably jittery nerves about the pace of technological change. One reason that the American public has been relatively muted in its opposition to bio-engineered food, for example, is that people mistakenly believe their health and the safety of the environment are adequately protected by agencies like the Food and Drugs Administration (FDA) and the Environmental Protection Agency (EPA). In this sense, the semblance of regulatory oversight has been highly beneficial for the biotech industry, much as it has for the chemical industry, the pesticide industry, and many others. The multi-billion dollar budgets of regulatory agencies are, in fact, most accurately interpreted as yet another subsidy given to large-scale producers.

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Reversing the advance of the large and global and bringing about a resurgence of the small and local will require efforts on many fronts. An important first step is to acknowledge that the growth of the global economy and the corporations that dominate it are not the product of evolution, nor are they the consequence of truly free choice among the populations affected. Instead they are the result of many years of direct and hidden subsidies, public expenditures on infrastructures tailored to corporate growth, and government policies – from health and safety regulations to the rules of international trade – that are heavily biased towards the needs of the largest enterprises. Since all of these can be reversed, a shift in direction toward diversity, smaller scale and sustainability is within our reach.□

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"If we do this . . . if we make it impossible for these 5.6 billion people to escape CocaCola... then we are sure of our future success for many years to come. Doing anything else is not an option."

– CocaCola, Annual Report

Education for Globalisation

The modern Western education system – which has successfully replaced indigenous forms of education throughout the world – prepares students almost exclusively for an urban existence, and dependence on fossil fuel and global trade. Children are taught from an early age how best to compete. But they are not taught how best to live in a truly sustainable society. **By David W. Orr**

We all know by now that many things on which our future health and prosperity depend are in dire jeopardy: that modern life has succeeded in threatening climate stability, the resilience and productivity of natural systems, the beauty of the natural world and both biological and cultural diversity. It is worth noting that this is not the work of ignorant people. Rather, it is largely the results of work by people with BAs, BScs, LLNs, MBAs and PhDs. Elie Wiesel¹ once noted that the designers of Auschwitz, Dachau and Buchenwald were the heirs of Kant and Goethe, widely thought to be the best educated people on Earth. But their education did not serve as an adequate barrier to barbarity.

What was wrong with their education? In Wiesel's words:

"It emphasised theories instead of values, concepts rather than human beings, abstraction rather than consciousness, answers instead of questions, ideology and efficiency rather than conscience."

The same can be said of modern, Western education today – the education that has equipped and enabled us to drive the planet to the point of crisis with remarkable efficiency, and which is now being rapidly globalised, along with the economic system it legitimises.

Toward the natural world, this education system, like that which produced the butchers of the Holocaust, emphasises theories, not values; abstraction rather than consciousness; neat answers instead of questions; and technical efficiency over conscience. It is worth noting that just about the only people who have lived sustainably on the planet for any length of time could not read, or at least did not make a fetish of it. My point is simply that education is no guarantee of decency, prudence or wisdom. This is not an argument for ignorance but rather a statement that the worth of education must now be measured against the standards of decency and human survival – the issues now looming so large before us in the 21st century.

It is not education, but education of a certain kind, that will save us. And the current model of Western, urban-centred, school-based education, which is so often more focussed on turning children into efficient corporate units rather than curious and open-minded adults, will only lead us further down the wrong path.

The Six Myths of Modern Education

Francis Bacon, Galileo, Descartes and other European thinkers helped to lay the foundations of today's increasingly global education system; foundations that are enshrined in six key myths that we have come to accept without question.



MYTH ONE: *Ignorance is a Solvable Problem*

Ignorance is an inescapable part of the human condition. We can never comprehend the world in its entirety. The advance of knowledge always carried with it the advance of some form of ignorance. For example, in 1929 the knowledge of what a substance like CFCs would do to stratospheric ozone was a piece of trivial ignorance as the compound had not yet been invented. But in 1930 after Thomas Midgely, Jr., discovered CFCs, what had been a piece of trivial ignorance became a critical life-threatening gap in

human understanding, not filled until the 1970s, when it may already have been too late. With the discovery of CFCs, knowledge increased, but like the circumference of an expanding circle, ignorance grew as well.

MYTH TWO: *With enough Knowledge and Technology, we can Manage The Earth*

The complexity of Earth and its life systems can never be safely 'managed'. What might be managed, instead, is us: human desires, economies, politics and communities. But our attention is caught by those things that avoid the hard choices implied by politics, morality, ethics and common sense. It makes far better sense to reshape ourselves to fit a finite planet than to attempt to reshape the planet to fit our infinite wants.

MYTH THREE: *Knowledge (and therefore Human Goodness) is Increasing*

An information explosion should not be mistaken for an increase in knowledge and wisdom. Though some knowledge is increasing, other kinds of knowledge are being lost. For example, David Ehrenfeld has pointed out that many university biology depart-

ments... In the wake of this loss of personal and local knowledge, the knowledge from which a real geography is derived, the knowledge on which a country must ultimately stand, has come something hard to define but I think sinister and unsettling."

The modern university does not consider this kind of knowledge worth knowing except to record it as an oddity under "folk culture". Instead, it conceives its mission as adding to "the fund of human knowledge" through research. Historian Page Smith³ has said of this:

"The vast majority of so-called research turned out in the modern university is essentially worthless. It does not push back those omnipresent 'frontiers of knowledge' so confidently evoked; it does not *in the main* result in greater health or happiness among the general populace or any particular segment of it."

All things considered, it is possible that we are becoming *more* ignorant of the things we must know to live well and sustainably on the Earth.

MYTH FOUR: *The World is Neat and Tidy*

Modern education fragments the world into bits and pieces called 'disciplines' and 'subdisciplines', hermetically sealed from each other. As a result, after 12, 16 or even 21 years of education, most students graduate without any broad, integrated sense of the unity of things. The consequences for the planet are large. For example, we routinely produce economists who lack the most rudimentary understanding of ecology or thermodynamics. This explains why

We routinely produce economists who lack the most rudimentary understanding of ecology or thermodynamics. This explains why our national accounting systems add the price of the sale of a bushel of wheat to the gross national product while forgetting to subtract the three bushels of topsoil lost to grow it. As a result of incomplete education, we have fooled ourselves into thinking that we are much richer than we are.

our national accounting systems add the price of the sale of a bushel of wheat to the gross national product while forgetting to subtract the three bushels of topsoil lost to grow it. As a result of incomplete education, we have fooled ourselves into thinking that we are much richer than we are.

MYTH FIVE: *The Purpose of Education is to Produce 'Successful' People*

Thomas Merton⁴ identified this as the "mass production of people literally unfit for anything except to take part in an elaborate and completely artificial charade." His advice to students was to "be anything you like, be madmen, drunks, and bastards of every shape and form, but at all costs avoid one thing: success." The plain fact is that the planet does not need more 'successful' peo-

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"In Mexico, our opportunities have been significantly broadened with the passage of NAFTA. With doors wide open to international trade, Mexico's 85 million people beckon as a highly-attractive market, where nearly 9 billion servings of soup are consumed each year."

— Campbells Soup Company, Annual Report 1994



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ments no longer hire people in such areas as taxonomy or ornithology, focussing instead on molecular biology and genetic engineering, which are more lucrative but not more important areas of inquiry. And it is not just knowledge in certain disciplines that we are losing, but also vernacular knowledge, by which I mean the knowledge that people have of their places. According to Barry Lopez⁵:

"Year by year, the number of people with firsthand experience in the land dwindles. Rural populations continue to shift to the

Modern education is almost exclusively focussed on preparing children for an urban future, as consumers in a global 'free' market. This makes a return to any sort of rural existence almost an impossibility for those tutored by the Western education system in the 21st century.



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people, through choice or necessity, return to the land in the 21st century? They will be in trouble, for the fact is that a considerable number of skills useful for rural life are being lost. An Amish friend of mine, for instance, describes his father in these words:

"Father was one of those rare people who possessed many of the arts and skills needed in thriving rural communities. Besides being a farmer and a husbandman, he was a thresherman, a sawyer, orchardist, his own mechanic, a carpenter, for a short time his own blacksmith, plumber, and for a while he even whitewashed our milking stable using the orchard sprayer."

In the West – and increasingly, elsewhere – these are no longer common skills. But an equally serious loss is the decline of the qualities of mind that permit such varied skills to flourish. A mind that knows how to do many things well has a complexity, agility and resilience

unknown to the specialists which our education system is geared towards producing.

The Business of Education

It is perhaps no surprise that, since modern education is best at producing urban consumers, business is taking an interest in how our schools and colleges are run. In America, this is most extreme. Thomas Jefferson would scarcely have recognised the reasons given in the US for current educational reforms, which mostly aim to make our young scholars a "world-class workforce", able to compete in a global economy. It is American brand names we want on the next generation of landfilled consumer trash and junk, not those of other countries.

To this end, corporate interests have set out to remake education. Something called the 'New American Schools Development Corporation', created at former President Bush's request, and reportedly run by executives on loan from General Motors, Xerox and other corporations, is attempting to "rebuild the whole [education] system", to "reach the performance of a Toyota or Honda." In other words, business is entering education, in order to shape it in accordance with its own (profit-chasing) interests. Obvious examples include Channel One, the TV channel which is offered free to schoolchildren across the USA, in return for the right to screen two minutes of commercial advertising during the school day. It now reaches over 8 million children across the country. Whittle Communications, the corporation behind Channel One, intends to create 1,000 for-profit schools across the country.

This corporate takeover of education (which is not an exclusively American phenomenon – the Blair government in the UK seems to be taking a similar path with its business-run 'Education Action Zones') is moving our children in precisely the wrong direction – preparing them for a globalised, technocratic, consumeristic, fragmented world, when what is needed is to train people to repair the damage that world has done. We need to rethink seriously the way we educate our young, if that education is not to continue to contribute to the problems we are inflicting on ourselves and our planet. □

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ple. But it does desperately need more peacemakers, healers, restorers, storytellers, and lovers of every kind. It needs people who live well in their places. It needs people of moral courage willing to join the fight to make the world habitable, just and humane. And these qualities have little to do with success as our culture has defined it.

MYTH SIX: Western Culture Represents the Pinnacle of Human Achievement

This, of course, represents cultural arrogance of the worst sort and a gross misreading of history and anthropology. Recently, this view has taken the form that because the West 'won' the Cold War, its society must be the ideal model for the rest of the world. Certainly, state communism failed as an economic system, largely because it produced too little at too high a cost. But capitalism has also failed because it produces too much and shares too little, also at too high a cost to our children and grandchildren. Communism failed as an ascetic morality. Capitalism has failed because it destroys morality altogether. This is not the happy world that any number of feckless advertisers and politicians describe. We have built a world of sybaritic wealth for a few and Calcuttan poverty for a growing underclass. The fact is that we live in a disintegrating culture. Ron Miller⁵ stated it this way:

"Our culture does not nourish that which is best or noblest in the human spirit. It does not cultivate vision, imagination, or aesthetic or spiritual sensitivity. It does not encourage gentleness, generosity, caring or compassion. Increasingly in the late twentieth century, the economic-technocratic-statist worldview has become a monstrous destroyer of what is loving and life-affirming in the human soul."

Education for a Globalised Future

Modern education, underpinned by these six myths, is almost exclusively focussed on preparing children for an urban future, as consumers in a global 'free' market. This makes a return to any sort of rural existence almost an impossibility for those tutored by the Western education system in the 21st century. The fact is that, for all the fashionable talk about cultural diversity, schools, colleges and universities today prepare their graduates poorly for anything other than a homogenised, fossil-fuel-powered, urban existence. We educate the young, from country to city alike, to be urban, with urban appetites, skills, minds, dependencies and expectations. And as a globalised future will overwhelmingly mean an urban future, our graduates of tomorrow will be trained, above all, to keep the wheels of the global economy turning, with all the implications that has for nature and society.

But what if the future is as much rural as urban? What if many

Recreating Life in the Image of Technology

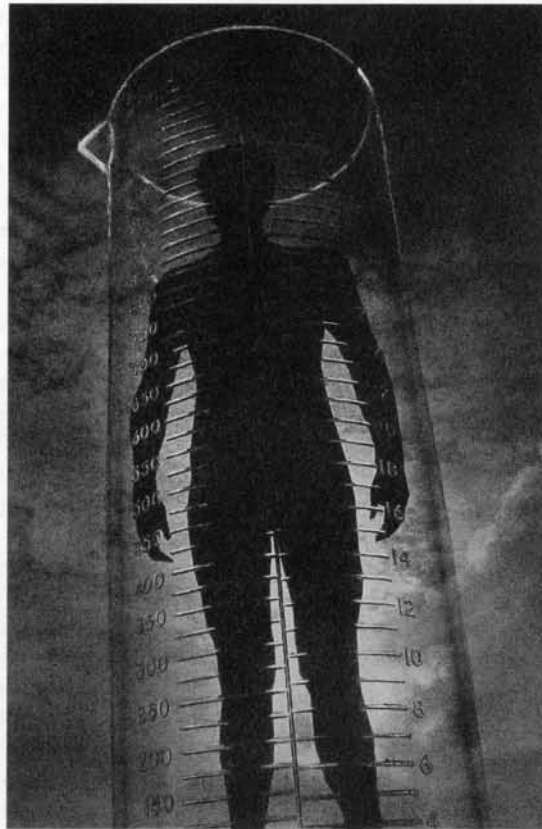
By Andrew Kimbrell

"Science Explores, Technology Executes, Man Conforms."

—Motto of the 1939 World's Fair

For most of the 20th century, the exploitation and supplanting of nature by technology has been viewed as the primary role of science and the *sine qua non* of progress. The self-stated goal of science has been to control and manipulate both human and non-human nature so as to provide ever greater material good and to overcome the "deficiencies" of the natural world. The basis for this scientific manipulation of nature is the application of mathematical methods to abstract and reduce the physical world. Mathematics makes nature quantifiable. Procedures for quantifying nature can be repeated. The repeatable is predictable and the predictable is controllable. From Descartes to the present the motto of science is "mathematise nature and you will master it."

The scientific method does, of course, separate us from nature, estranging us from all but the quantifiable in creation. However, as a substitute for a participatory relationship with nature science gives us an ersatz nature, an industrial-technological environment which purports to be safer and more controllable than the natural environment. Engineer and author Samuel C. Florman welcomes the new technological order, viewing the new techno-



deity of science not out of blind faith, but rather because "it works." As with the gods of the past, most of us do not understand science and often find its principles and methods arcane and mysterious. Yet we gratefully accept and are deeply devoted to science's technological incarnations which have come to dominate our lives. Technology has, without question, become the omnipresent reality mediating the vast majority of our public and private activities. Our homes, workplaces, transportation, food, energy, entertainment, leisure, education, and government have all become part of the technological grid. Moreover, society's collective hopes for the future are fired by the technological imagination. We continue to dream of, and strive for, new techniques which will cure all disease, feed the world, conquer the solar system and perhaps one day allow us all silicone immortality as our carbon based bodies and minds are transferred and downloaded into computers.

We are ourselves profoundly changed by our interaction with modern

technology. As writer Jerry Mander has pointed out, on each side of the human-machine equation there are adaptations. Our machines become ever more lifelike, witness computers and virtual reality. We become more like the machines, note that repetitive motion disorder is the leading cause of workplace injuries. This adaptive homogenising process to science and technology is now being globalised with few societies able to withstand the reign of science and its technological incarnations.

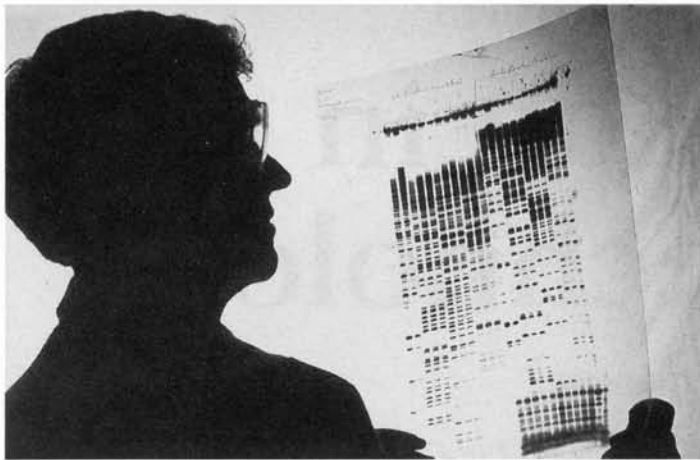
However, in recent years, the zeal of the religion of science has significantly lessened. It is becoming increasingly apparent that the costs of the scientific abstraction and manipulation of nature were far beyond what could have been predicted. Most disturbing is that the scientific-technological onslaught has brought humanity face to face with the first truly global environmental crisis in recorded history. Over the last two decades the public, though still worshipping the scientific world-view, has been jolted by revelations about ecological threats to the biosphere that they had not even suspected existed – ozone depletion, the greenhouse effect, acid rain, species extinction, desertification, deforestation.

The crisis over science and technology's current unprecedented destruction of nature has put modern society in an historic

It is ever more urgent that we become heretics to the religion of science. Failure to do this will forever bar a rapprochement with nature, for nature as we know it will cease to exist.

environment as superior to the old natural one. "I can see no evidence that frequent contact with nature is essential to human well-being," Florman writes. "Why must man continue to commune with the landscapes in which he evolved?" Florman further asserts that technology has saved us from the "callous brutality, the unbelievable pain, the ever-present threat of untimely death for oneself (and worse one's children) which were the 'natural' realities with which our ancestors lived."

So if Science is the modern "god" then this deity incarnates through industrialisation and its technology. We believe in the



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dilemma. Humanity has become fully dependent on, and deeply addicted to, the scientific world-view and the technological environment. Yet this mode of thought and action is threatening the very viability of life on Earth. It is becoming increasingly evident that we cannot ultimately survive with our current science and technology; yet we can't imagine living without it.

A common-sense approach to this quandary would be to begin reinventing our science and devolving our technologies in order to preserve the environment and our own survival. For many years there has been a small but persistent movement urging the adoption of a "new" ecological scientific approach and the substitution of sustainable or "appropriate" technologies for the megatechnologies which are so devastating to nature. However, while ecological science continues to make some inroads, neither it nor appropriate technology has received mass support among the world's policy makers. For most, remaking our technological infrastructure appears too great a task and unprofitable for the current corporate system. Further, ecological sensitivity and the appropriate technology movement go directly counter to the scientific world-view and its technological fantasies of finally conquering nature and breaking all limitations on human activity.

As the move to conform science and technology to Nature's limits fails to gain momentum, another approach to the environmental crisis is being attempted. And it is a breathtaking initiative. The scientific elite has come to realise, albeit slowly, that current technology is not compatible with the sustaining of life forms. Their solution, however, is not to change technology so

that it better fits with the needs of living things, but rather to alter and engineer life so that it can survive and become more compatible with the technological milieu.

It is in this context that the enormous significance of the current revolution in biotechnology can be fully appreciated. Recombinant DNA technology is the tool which allows scientists to alter life so that it better fits the technological milieu. Genetic engineering, in fact, allows for life to be treated as technology. It is now possible to snip, insert, recombine, rearrange, edit, programme and produce genetic material much the same way as the engineers of the industrial revolution were able to separate, collect, utilise and exploit inanimate materials. Just as the factory system allowed for the production of unlimited amounts of identical machines, just so current advances in cloning are attempting to produce industrial numbers of identical life forms. Just as prior generations initiated a patent system to encourage the production of novel machines and products, we are now seeing the patenting of altered plants, animals and even human parts which have been redefined by the US Patent and Trademark Office as "machines and manufactures". With these capabilities and patenting incentives' scientists, and their corporate and government sponsors, have the potential of becoming the architects of life itself, the authors of a technological evolution designed to create new, more "efficient", species of microbe, plant and animal (including humans) which better comport with our technological system. Genetic engineering is the final adaptation of life to machine.

Seen from this perspective, biotechnology becomes the ultimate technological fix, a startling attempt to preserve the scientific world-view from its self-inflicted demise. Global warming is dealt with by genetically engineering plants and animals to withstand the temperatures and droughts resulting from global warming. Chemical pollution in agriculture is addressed by engineering herbicide resistant plants that can survive, no matter the volume of weed-killing chemicals used. Spoilage of food in our global food system is solved by genetically designing foods for long shelf-life. The mothering instinct in factory-farm, egg-laying chickens encourages brooding which is inefficient; so scientists have now engineered and patented chickens whose "mothering" genes have been "deleted". Species after species is being altered to fit and better survive in the technological milieu.

Of course the actual success of this Procrustean engineering of life has been very limited. Even successes bring with them myriad and unprecedented environmental, economic and ethical concerns. But the citadel of experts warn us that limiting or interfering with biotechnology could threaten virtually all future scientific research and technological progress. We are told not to resist. Science has brought us this far into technological progress, abandoning the faith now can only lead to disaster. The repulsion that most feel about genetic engineering is characterised as "emotional" and unscientific. We are assured that biotechnology will be managed for us and for our good. We simply must begin to accept the view that we, and all of life, are just another form of technology. As the *New York Times* stated in a lead editorial: "Life is special, and human even more so, but biological machines are still machines that can be altered, cloned and patented. The consequences will be profound but taken one step at a time they can be managed."

Genetic engineering then is the ultimate triumph of modern science over life. Through biotechnology life is being absorbed into technology, both at the conceptual and the genetic level. This transforms humans and all of creation into just another technological incarnation of the scientific world-view. Given this prospect, it is ever more urgent that we become heretics to the religion of science and that we reinvent and devolve our technology. Failure to do this will forever bar a rapprochement with nature, for nature as we know it will cease to exist. □

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How Cyber Culture Deletes Nature.

By Jerry Mander

My friends argue that computers can be empowering by helping us organise against the corporate juggernaut. Computers, they say, bring real power back to the individual. The cyber net helps build new alliances between like-minded radicals sitting at their terminals, using email and web pages to spread news and mobilise battles. By such analysis, computers clearly seem to be in service of progressive, democratising, decentralising tendencies.

But, if computers have eliminated the old political centre and replaced it with a new Net-based Web politics that brings us an enhanced democracy run through by cyber space, someone forgot to tell the transnational corporations (TNCs).

In Tokyo, New York, Brussels and Geneva, centralised corporate and political power is accelerating more rapidly than ever, and the computer has played a critical role in this. Today's giant financial institutions could not exist without computers. Computers are their global nervous systems – keeping them synchronised and moving in the same direction for central purposes.

Richard Sclove of the Loka Institute put it this way: "Multi-National Corporations are decentralising operations and jobs around the world, but at the same time, they are intensifying their centralised control...so, for all the hype in the media about how the new technologies will enhance democracy, what we are getting at is not individual empowerment, but a new empowerment for Multi-National Corporations and banks."

Computers do nothing to alter the rapid global centralisation of power; quite the opposite is true. Computer technology may be the single most important instrument ever invented for accelerating the growth of centralised power.

While we sit at our computers editing our copy, sending our email and expressing our cyber freedoms, the TNCs are using their global networks (fed by far greater resources) to achieve concrete results expressed in depleting forests, massive infrastructure development, the destruction of rural and farming societies, displacement of millions of people and domination of governments.

E.F. Schumacher told us that Small is Beautiful, but one could also make the case that slow is beautiful, especially in preserving

the natural world. Computers speed up communication exchanges over long distances – a quality that is most advantageous to large centralised institutions. In our cyber – walkman – aeroplane – fax – phone – satellite world, we are so enclosed within a high-speed technical reality that the values and concerns of nature tend to become opaque to our consciousness. To ensure the survival of nature, everything – especially development and people – must slow down and synchronise with the more subtle and slow rhythms of the natural world.

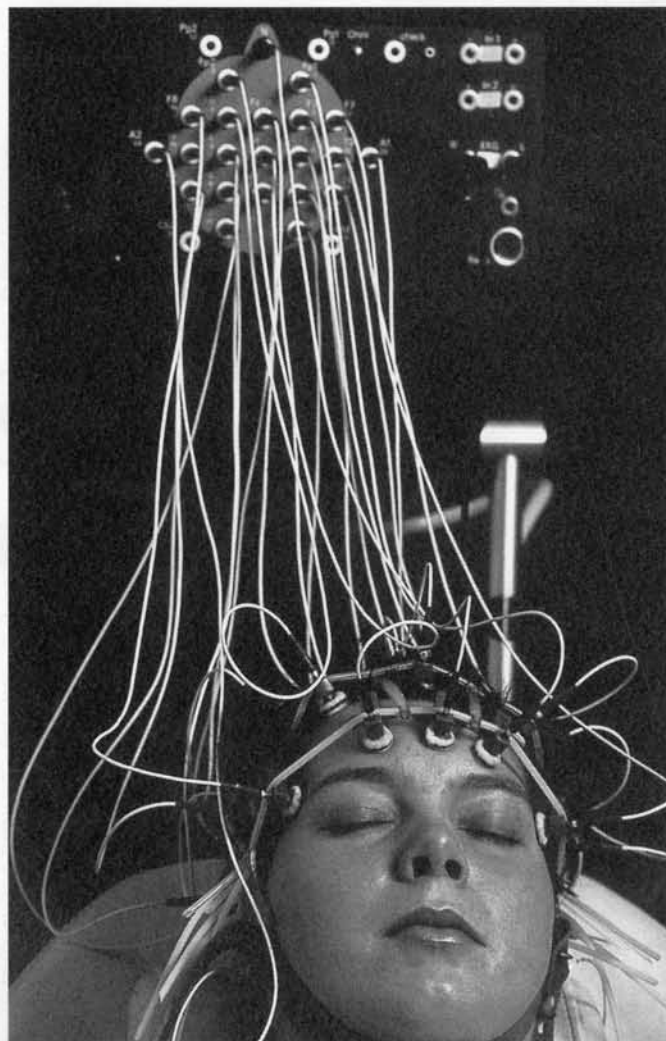
Portland state university education professor C.A. Bowers argues that our culture – newly immersed in data-based forms of knowledge and limited to information transmissible in digital form – a sacrifice in the subtle, contextual and memory-base gleaned from living in a nature-based society nourished by interactive learning with other humans and an ecologically-based value system. The more we use the computer and the more it is used globally, the stronger its culturally homogenising effect and the greater likelihood that our new globalised digital culture will be less concerned about the disappearance of nature.

The big trade agreements are an intrinsic part of the global technical structure – in fact, they are the "consciousness" of the mega-development of the mega-developmental, mega-technological, mono-cultural model that encircles the global and permeates our lives.

Individual technologies have defined roles to play: television serves as a worldwide agent of imagery for the new global corporate vision; computers are the nervous system that facilitates the set-up of new global organisations; trade agreements wipe out resistance; telecommunications provide instant capital and resource transfer; and genetics and space technologies expand the world market into the new wilderness areas – from the internal cell structure of living creatures to the far reaches of untrammelled space.

This new techno-sphere is an anathema to democracy and diversity. In such a context, democracy faces a difficult future.□

Jerry Mander is a senior fellow at the public media centre, California, and the author of *Four Arguments for the Elimination of Television* and *In The Absence of The Sacred*.



STILL PICTURES



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Greenwash – Co-opting Dissent

By David Edward

"The big corporations, our clients, are scared shitless of the environmental movement...[But] environmentalists are going to have to be like the mob in the square in Romania before they prevail" – *Frank Mankiewicz, senior executive at transnational PR firm, Hill and Knowlton.*

In the mid-1980s, with Chernobyl lighting up the sky and CFCs unravelling the ozone layer, an increasingly agitated public looked to their political and business leaders for a response to the environmental crisis. A 1989 *New York Times*/CBS poll found that 80 per cent of people surveyed agreed that protecting the environment was "so important that standards cannot be too high and

continuing environmental improvements must be made regardless of cost".

Corporations were quick to respond. Marks & Spencer urgently filled their stores with green, globe-shaped placards that read: "Return Your Trolley – Protect Your Environment".

A bewildered public turned to Austin Rover which insisted that

one of its cars was “capable of running on unleaded petrol”, and was therefore “as ozone friendly as it is economical.”

Nappies were the next Great Green Hope. Proctor & Gamble vigorously promoted the world-saving potential of their disposable Pampers, claims bolstered by the appearance of the World Wide Fund for Nature (WWF) logo on material promoting Pampers and Ariel washing powder. Alas, it soon transpired that the use of the WWF logo had quite literally been bought by Proctor & Gamble for £300,000 – without the WWF confirming the credibility of the claims.

More recently, Shell, apparently borrowing freely from the *bodhisattva* ideal of Tibetan Buddhism, declared: “In fact, as long as the earth needs someone to care for it, you can be sure of Shell”.

As corporations no doubt anticipated, the green movement was soon divided between those who argued that green consumerism was a ludicrous con, and those who thought it represented the way forward.

ICI's Malaysian subsidiary was happy to laud their herbicide's environmental benefits in an advertisement depicting “Paraquat and Nature Working in Perfect Harmony”.

Needless to say, research has shown that Paraquat can be fatal to frog tadpoles at the lowest dose tested, is highly toxic to some species of bird and insect, kills honeybees at doses lower than those used for weed-killing and is toxic to some species of mite.

In 1987, in their book, *The Green Capitalists*, John Elkington and Tom Burke, gave their answer: “The emergence of a new breed of ‘green’ capitalists... is an enormously hopeful trend. They are bringing new perspectives to bear on the future.”

Their optimism was rooted in the belief that Green capitalists understood that “Environmentally unsound activities are ultimately economically unsound.”

There are however a number of good reasons for scepticism regarding corporate claims of profound change. Most obvious are the open declarations by business executives that they intend to deceive the public. But there is also the history of actual corporate performance, covered in detail in other areas of this special issue of *The Ecologist*.

Ten years after Elkington and Burke's optimistic predictions, as we witness the ongoing machinations of the oil, chemical, biochemical and engineering industries fronted by disreputable organisations such as the Global Climate Coalition, the Wise Use Movement and New Labour, we would do well to reflect on the advice of business consultant S. Prakesh Sethi who (writing ten years before Elkington and Burke) listed the strategies for business when dealing with adverse public opinion:

“1. Do not change performance, but change public perception of business performance through education and information.

2. If changes in public perception are not possible, change the symbols used to describe business performance, thereby making it congruent with public perception. Note that no change in actual performance is called for.

3. In case both (1) and (2) are ineffective, bring about changes in business performance, thereby closely matching it with society's expectations.”

According to business itself, then, it is “society's expectations” –

that is, popular pressure – not the good sense of business executives that will ultimately change business practice.

Business needs to be pushed, or it will not move; it will only appear to move.

Any Issue You Like – As Long As Its Greenwash

Throughout the 1950s and 1960s, corporate responses to popular unrest continued to focus on promotion of the status quo via the ‘jobs’ and ‘prosperity’ argument. Here the masses were warned that pressures on corporations to adapt their ways according to environmental and social requirements would lead to a decline in national economic growth, competitiveness and a decline in the employability of a nation's workers. Following this, the corporate response to environmental crisis in the 1960s and 1970s was to deny problems, deny responsibility, resist controls, and engage in ‘job blackmail’, whereby corporations threatened to relocate production if ‘hostile’ measures were implemented.

By the late 1980s, however, the extreme level of public concern meant that corporations had to resort to S. Prakesh Sethi's second strategy: changing symbols to describe business performance to ensure congruence with public expectations. This is greenwash.

In their book *Greenwash*, Jed Greer and Kenny Bruno list key manifestations of the new approach:

- Corporate restructuring to include environmental issues, such as environmental officers at high levels, or new environmental departments within a corporation
- Corporate environmental programmes like waste minimisation and recycling
- Responses to public concern about the environment
- Environmental themes in advertising and public relations
- Voluntary environmental policies.

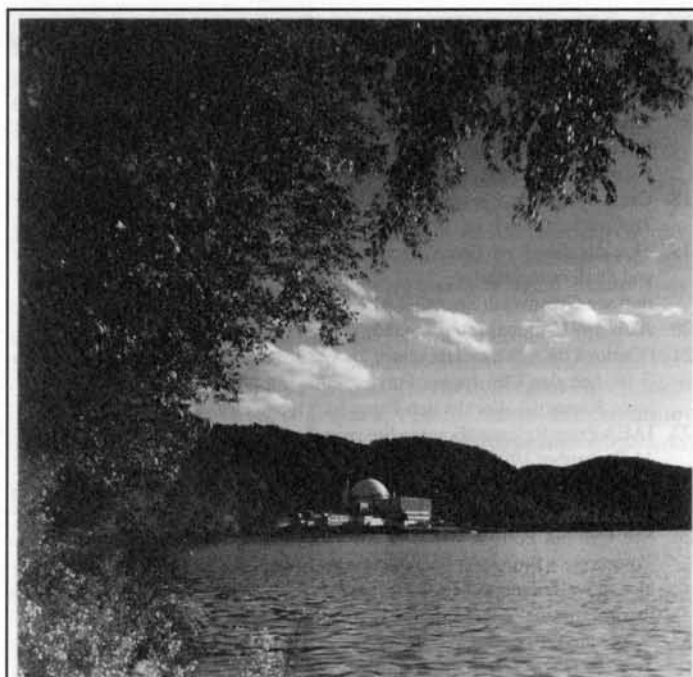
An important aspect of these responses is that they are not intended to relate to the operation of corporate subsidiaries in the Third World. On the contrary, amid promises of cleaning up their act in the Western countries, corporations are rapidly shifting their dirty work to the South where resistance is either weaker or less visible.

Chemical giant DuPont auditioned carefully for its television adverts: recruits included clapping sea lions, flapping ducks, jumping dolphins, flamingos and whales. Chairman Edgar S. Woolard, Jr. described this as “corporate environmentalism” which involved a set of principles that would help industry to “live

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“The aim is to convert millions of new customers to Campbell brands every year. We are moving across the oceans and into new nation states and blocs. The joy of it is that there is no speed limit on our progress. We can't be fined for speeding. Rather, the cheering will grow louder and stronger the faster we go . . . especially from our share-owners. And if we are smart, we will build wealth, as well as contribute to rising standards of nutrition for billions of consumers around the world. The potential rewards of this global consumer crusade are virtually limitless.”

– Campbells Soup Company, Annual Report 1994



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Nuclear energy means cleaner air.

As seen in January issues of Reader's Digest, Newsweek, Smithsonian, Forbes, Atlantic and National History, February issues of TIME, Christian Science Monitor, World Monitor, The Washington Post, The Washington Post National Weekly Edition and American Heritage, and March issues of Ladies' Home Journal, Good Housekeeping, FORTUNE, New Choice, Congressional Quarterly and National Journal.

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Care'. Although 'Responsible Care' commits companies to annual self-evaluation, those evaluations are not available for public inspection. In other words, companies evaluate themselves and then decide whether they have been successful or not. A chemical corporation's "commitment to continuous improvement" is backed up by nothing more than the corporation telling us that such is the case!

Similarly, although the code commits to the development of "safe" products, the word "safe" is used as a flexible friend to mean whatever chemical corporations want it to mean. Most revealing, the Chemical Manufacturers' Association found in its own survey that relatively few chemical industry employees had even heard of 'Responsible Care'.

In similar vein, the 'Rotterdam Charter', dreamt up by the International Chamber of Commerce (ICC) before the 1992 Earth

If we are to solve the world's escalating social and environmental problems, we need to cultivate an understanding of these problems based not on the false words of corporate spin, but rather on the instincts of ordinary people and on the science of the truly independent.

Summit commits to "sustainable economic development". The words sound nice, but were actually coined to enable global economic growth to escalate: "Economic growth provides the conditions in which protection of the environment can best be achieved." (Executive Board, ICC)

The assumption being that investment in environmental protection relies on wealth creamed off from economic growth – a dubious concept at best.

The strategy of delivering carefully prepared responses to environmental concern is generally designed to confuse the argument, dissipate protest and so postpone action. In October 1997, Nobel Prize winner Dudley Herschbach, professor of chemistry at Harvard University, warned of the threat of global warming:

"This is a wake-up call for world leaders. Never before has the senior scientific community spoken so boldly on the urgent need to prevent disruption to our climate."

Three days later, James May, Director-General of the UK Offshore Operations Association Limited, opened the sluice gates on the greenwash:

"I should make clear at the outset that concern for the environment is something that motivates us all." However, May notes, "All would admit the science surrounding climate change is complex. One thing is clear, though. This is a global issue, necessitating a global response."

The real meaning of the statement is clear enough when translated from Newspeak. May argues that "the science . . . is complex", which is industry code for: "more research needs to be done, we can't be sure of the significance of the threat".

The examples are endless, but wherever we look we will find business as usual. The evidence is all around us: after several decades of mounting, hard evidence pointing to impending environmental catastrophe, not only has big business not reformed itself, it has vastly expanded its global reach.

If we are to solve the world's escalating social and environmental problems, we need to cultivate an understanding of these problems based not on the false words of corporate spin, but rather on the instincts of ordinary people and on the science of the truly independent. □

David Edwards is a researcher/writer for International Society for Ecology and Culture. His latest book *The Compassionate Revolution* is published by Green Books.

up to society's expectations around the world."

DuPont in fact, of course, is famous around the world for inventing chlorofluorocarbons (CFCs) – the primary chemicals responsible for ozone depletion. In March 1993, DuPont announced it would stop CFC production for sale in "developed countries", following record-low ozone levels over Northern Europe and Canada. The company continued to manufacture CFCs for export to the Third World however. Despite grand claims in one of its more ludicrous advertisements that it is now "protecting the skies", DuPont's substitutes for CFCs – hydrofluorocarbons (HFCs) – are in fact powerful greenhouse gases that also deplete ozone three to five times the extent claimed by DuPont.

For many years, ICI produced vast quantities of Paraquat, a highly toxic herbicide banned in five countries and listed as one of the "Dirty Dozen" by The Pesticide Action Network. ICI's Malaysian subsidiary was nevertheless happy to laud their herbicide's environmental benefits in an advertisement depicting "Paraquat and Nature Working in Perfect Harmony". Needless to say, research has shown that Paraquat can be fatal to frog tadpoles at the lowest dose tested, is highly toxic to some species of bird and insect, kills honeybees at doses lower than those used for weed-killing and is toxic to some species of mite. Horses also seem to have missed out on the harmony, suffering lesions in the mouth and increased mucous secretions after grazing on pastures recently sprayed with Paraquat. The World Health Organisation (WHO) recommended that "all domestic animals should be kept far from freshly-sprayed areas." As for human beings, the US EPA has classified Paraquat as a "possible human carcinogen"; it can also lead to skin injuries such as dermatitis, burns and rashes at even low levels.

A favoured kind of greenwash has been the voluntary adoption of "corporate codes of conduct" by transnational corporations (TNCs). The chemical industry calls its set of codes 'Responsible



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Increasing Trade – Increasing Pollution

Unrestricted global trade is the economic objective of just about every government in the world today. But, far from providing poor countries with the technological and financial means to tackle today's environmental problems, more global trade will make those problems far worse. Already, largely due to the Western economic model, the world's forests are massively depleted, the seas are over-fished and awash with chemical poisons, croplands are severely degraded, and the climate itself is changing in unpredictable ways. For the global environment, 'development' is the problem, not the solution. **By Edward Goldsmith.**

How Development Leads to Destruction: the case of Taiwan

'Development' as defined today must, by its very nature, *further* increase the damage that has already been done to the world's ecosystems. In the world's most recently industrialised countries, this correlation between development and destruction can be clearly seen, and this is well illustrated by the recent history of Taiwan.¹

Over the last few decades, Taiwan has achieved fantastic rates of economic growth and until the Asian crash of 1997 was held up by the West as a model for all 'Third World' countries to

emulate. Yet the impressive facts and figures fail to account for the terrible environmental destruction that has been wreaked on the island. Virgin forest used to cover the whole of the eastern coast; now, industrial complexes, agriculture and conifer forests have taken its place. Elaborate transport infrastructure has caused serious soil erosion, and in the mountain areas whole slopes of soil have fallen away. Between 1952 and 1980, fertiliser use tripled. Consequently, the soil acidified and lost much of its fertility. The fertiliser run-off has contaminated rivers and ground water – the main source of drinking water for many Taiwanese.

The government places no regulations whatsoever on burgeon-



In North America, the US government predicted that NAFTA would increase cross-border traffic between America, Canada and Mexico sevenfold, with a subsequent increase in noise and air pollution. Today, 5,000 trucks cross the Texas-Mexico border every day, of which a quarter carry hazardous explosives or chemicals.

"Despite much good work, we still must face a sobering fact. If every company on the planet were to adopt the best environmental practices of the 'leading' companies – say Ben and Jerry's, Patagonia, or 3M – the world would still be moving towards sure degradation and collapse." – Paul Hawken, *The Ecology of Commerce*

ing pesticide use, and most food produced is now so contaminated that, according to sociologist Michael Hsias, "many farmers don't eat what they sell on the market. Instead, they grow an organic crop, and that is what they consume."²

A substantial number of Taiwan's 90,000 factories were built in the countryside, alongside rivers and rice fields. In order to maximise competitiveness, their owners disregard what waste-disposal regulations there are and simply dump much of their waste into the nearest waterway. Not surprisingly, 20 per cent of farmland is now polluted with industrial wastewater. And, according to the government itself, 30 per cent of the rice grown in Taiwan is contaminated with heavy metals like mercury, arsenic and cadmium.

Human waste, of which only about one per cent receives even primary treatment, is flushed into rivers, providing nutrients for the unchecked growth of weeds which use up the available oxygen, killing off fish life. Partly as a result, Taiwan now has the world's highest incidence of hepatitis.

Industrial and agricultural waste has polluted the lower reaches of Taiwan's rivers to such an extent that they are now little more than flowing cesspools. In Hou Jin, 40 years of pollution by the Taiwan Petroleum Company has made the water not only unfit to drink but actually combustible. Air pollution pervades the island. Sulphur dioxide and nitrous oxide pollution have reached levels over twice those deemed harmful in the US. Consequently, the incidence of childhood asthma has quadrupled in the last ten years, and cancer is now killing more Taiwanese people than any other factor.

It could be argued, as it often is by proponents of the free market, that once Taiwan has achieved a certain level of affluence, capital could be made available for the installation of technological infrastructure that would mitigate the destructiveness of the development process. Yet this argument is no longer credible. For the globalisation of the world's markets has fuelled a rampant competitiveness in which every nation struggles to create the most attractive conditions for industry. Thus market demands for "regulation relief" ride roughshod over hard-won environmental, labour and safety regulations. It is increasingly the case that not

even rich countries can now "afford" serious environmental controls, and global agreements to conserve biodiversity and protect the climate, like those signed at the 1992 Earth Summit, have been the first casualty of this race for 'efficiency'.

Creating Consumers

Creating a global economy means generalising this destructive development pattern, which in turn requires the conversion of the still largely rural populations of the Third World into consumers of capital-intensive goods and services. It is vital for 'development' that everyone, everywhere, should crave the material wealth of the affluent Western lifestyle, as beamed into homes across the world by advertisers and American TV companies – a lifestyle which can only be satisfied at great social and ecological cost.

Yet even if all were to crave that lifestyle, all could not live it. It has been calculated that if every country in the world were to consume as much per capita as the USA, the environmental impact of our global economic activities would be 16 times what it is today. In terms of the strain this would put on the world's ecosystems, this is clearly impossible, but the directors of large transnational corporations, and their front men in the governments of the West, would have us believe otherwise.

Specialisation for Export

Impoverished Third World countries understandably look to the global market to generate wealth. And one of the key principles of globalisation is that countries should specialise in producing and exporting a few commodities that they produce particularly well, and import virtually everything else. That way, production is no longer limited by local demand but serves an insatiable global appetite instead. Hence, the rate of export and economic growth rises exponentially.

In the case of agriculture, the vast plains of mono-crops that result from this principle are causing serious environmental damage. In the US Midwest, for example, intensive cultivation of soya beans and maize for export has caused such serious soil erosion that what was once the most fertile agricultural region in the world will, on current trends, be almost entirely deprived of its topsoil within the next 50 years.³

Tobacco and coffee are also both grown primarily for export, and both cause excessive degradation to their native soils.^{4,5} As Georg Borgstrom writes in *The Hungry Planet*, "the almost predatory exploitations by coffee planters have ruined a considerable proportion of Brazil's soils. In many areas, these abandoned coffee lands are so ruined that they can hardly ever be restored to crop production."⁶ A full 84 per cent of all coffee grown is exported.⁷

Prawn farming is another of the world's largest export industries. In the last 10 years, the Taiwanese prawn-farming industry alone has increased more than 45 times.⁸ But intensive prawn farming requires the destruction of massive areas of coastal mangrove forest; already, half of the world's mangroves have been cut down, much of it to accommodate shrimp farms. And the destruction of mangroves is catastrophic for fish populations, as many species spawn and

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– CocaCola, Annual Report

STILL PICTURES



A toxic waste dump in Nigeria.

Globalisation and Climate Change.

By Victor Menotti and Ladan Sobhani

By liberalising trade and investment, local and regional economies are being transformed into export-orientated, fossil-fuel-based production units competing in unregulated global markets. Therefore globalisation necessarily leads to further destabilisation of the world's climate.

Increasing Transport of Goods.

Air transport is growing dramatically. According to Boeing, world air cargo traffic nearly tripled from 1985 to 1997, and another tripling is forecast by 2017. Airfreight is far more energy-intensive than other modes of transport, where each ton by air requires 47 times more energy per kilometre than by ship. Air carriers are particularly harmful to the environment because the carbon dioxide, nitrogen oxides and water vapours they emit remain in the atmosphere and are not absorbed by the Earth's ecosystems.

Shipping, the primary mode of trade transport, is estimated to increase by about 85 per cent between 1997 and 2010. Currently, about 140 million tons of fuel are consumed each year by ships worldwide. Most are fuelled by a low-quality oil known as Bunker C which is high in carbon and sulphur.

Land transport for trade is also increasing. In North America, a "NAFTA superhighway" will link trade routes in the three countries, where US-Mexico truck traffic is projected to double over NAFTA's first five years. The European Union is also a good example, with trans-border truck traffic increasing an estimated 30-50 per cent.

Spreading Industrial Agriculture.

Globalisation is also spreading the practices of industrial agriculture, a model highly dependent on fossil fuels: for tilling, planting, harvesting, applying fertilisers and pesticides, as well as heavy processing,



packaging and transport of food after it leaves the farm; although much of the world (e.g. China, India and Mexico) still primarily feeds itself through less energy-intensive farming methods. The WTO and other trade agreements obligate countries to open their agricultural markets to foreign competition. This has led to massive migration from rural to urban areas all over the world, as people are displaced from their lands. Urbanisation in turn creates more energy demands, as food, water, building materials and energy must all be transported great distances and wastes must be hauled away or incinerated. Urban populations depend on transport for their food, which means that eating a pound of food might also be accompanied by several pounds of petroleum consumption.

Transferring Fossil-Fuel Technologies.

With globalisation, the proliferation of fossil-fuel technologies is soaring. Environmentally-destructive technologies such as the automobile and jet aeroplanes are being foisted on nations not yet dependent on

fossil fuels. General Motors recently began producing 100,000 cars annually in China, where people rely primarily on bicycles and public transportation. Since the 1992 Earth Summit, the World Bank has financed \$9.4 billion worth of energy projects, which together will emit more CO₂ over their lifetimes than is currently emitted every year by all countries combined. In addition, WTO rules on intellectual property rights restrict the transfer of "green" technologies to the Third World by making them more expensive and difficult to obtain.

Stifling Efforts to Reduce Emissions.

International trade agreements free large companies to move unrestricted around the globe, and countries attempting to protect the environment are not competitive locations for investments. Thus, governments compete against each other in a "race to the bottom," lowering environmental standards or maintaining weak ones to attract inward investments or to prevent the flight of existing business. In a globalised economy, simply the threat of relocation is powerful enough to send policy-makers on a deregulatory frenzy, and attempts to raise environmental standards become almost impossible. The European Union's failed attempt at imposing a carbon tax in 1992 to control emissions is one such example: opponents of the tax complained that this would affect the EU's economic competitiveness. An effort in the US failed for similar reasons. One of the key arguments presented by the industry-led Global Climate Coalition is that if the U.S. clamps down on emission domestically, business will just move offshore.

Victor Menotti is the director of the Environment Programme at the International Forum on Globalisation in San Francisco

For a complete version of this document, please refer to the International Forum on Globalisation's website: www.ifg.org/environmental.html

rear their young amongst these coastal forests.

Intensive prawn farming also places an enormous strain on local fresh water supplies, as prawns like to live in a mixed fresh and salt-water environment. Often, water is siphoned from community rice paddies. In the Philippines, the over-extraction of ground water for prawn farms has caused shallow wells, orchards and ricelands to dry up, land to subside and salt water to intrude from the sea.⁹ Chemical pollution is another of the industries' side effects; some intensive prawn farms spray up to 35 different chemical and biological products on their land. In South Thailand's "rice bowl", chemical runoff from the region's 15,000 acres of shrimp farms have caused rice yields to crash.¹⁰

The fishing industry, too, is straining under export demands. Today, over 40 per cent of fish caught worldwide are exported, but fisheries are still not able to meet global demand. Nine of the world's 17 major fishing grounds are now in decline and four are

commercially "fished out". In 1992, the great cod fisheries off Newfoundland in Canada were closed indefinitely, and in Europe mackerel stocks in the North Sea have decreased by 50 times since the 1960s.¹¹

Transport Costs

The development of the global economy poses other, less direct, strains on the global environment. In 1991 the energy used to transport the world's freight by ship was the same as that used by the entire economies of Brazil and Turkey combined. In the same year, airborne freight required as much energy as the total annual energy use of the Philippines.¹² In North America, the US government predicted that NAFTA would increase cross-border traffic between America, Canada and Mexico sevenfold, with a subsequent increase in noise and air pollution. Today, 5,000 trucks cross the Texas-Mexico border every day, of which a quarter carry haz-

"From this perspective, recycling aluminium cans in the company cafeteria and ceremonial tree plantings are about as effective as bailing out the Titanic with teaspoons" - Paul Hawken, *The Ecology of Commerce*.

ardous explosives or chemicals.¹³

Even these statistics only account for the energy used up in the transportation process itself. The environmental, social and financial costs of constructing the necessary infrastructure for a genuinely global market would be practically immeasurable. If the true costs of increased transport were internalised onto company accounts, globalised trade would soon be considered uneconomic. Instead, taxpayers subsidise the cost of transport infrastructure and pollution-related medical bills, whilst insurance companies wipe up the toxic chemical spills.¹⁴

An EC report of the early 1990s questioned the effectiveness of Europe's environmental regulations even before the WTO came into existence. It pointed out that there had already been a 13 per cent increase in the generation of municipal wastes between 1986 and 1991, a 35 per cent increase in the EC's water withdrawal rate between 1970 and 1985, and a 63 per cent increase in fertiliser use between 1986 and 1991. Europe also seemed unlikely to meet its carbon emissions targets.

Clearly then, these regulations needed to be seriously strengthened. Yet in the free-for-all of the global economy, no country can strengthen environmental regulations that increase corporate costs without putting itself at a "comparative disadvantage" *vis-à-vis* its competitors. As Ralph Nader puts it, "the international standards provide a ceiling but not a floor for environmental and health protection."¹⁵ Global free-trade agreements like the Uruguay Round Agreement on the General Agreement on Tariffs and Trade (GATT) and NAFTA have only served to institutionalise this phe-

nomenon.

For example, in August 1998 the Canadian government was forced to revoke a ban on the cancer-causing petrol-additive MMT, after the US Ethyl Corporation, acting under NAFTA rules, sued them for \$251 million. And if the European Union tries to extend its 10-year moratorium on hormone-treated beef imports from the US this summer, the World Trade Organisation could prevent it from doing so, even though the EU's ban is based on scientific assessments of potential health risks, and is supported by most of the democratically-elected governments of Europe.

Ironically, even the worshippers of free trade have produced little evidence that it is of any great value to humanity as a whole, rather than just to selected governments and industries. World

Ironically, even the worshippers of free trade have produced little evidence that it is of any great value to humanity as a whole. World trade has increased by eleven times since 1950 and economic growth by five times, yet during this same period there has been an unprecedented increase in poverty, unemployment, social disintegration and environmental destruction.

trade has increased by eleven times since 1950 and economic growth by five times, yet during this same period there has been an unprecedented increase in poverty, unemployment, social disintegration and environmental destruction. Yet the global environment is our greatest – and ultimately our only – form of wealth. We need to decide whether it is worth sacrificing our future and that of our children in order to enjoy, for perhaps no more than a further four decades, our aberrant technology-intensive lifestyle. □

This article originally appeared as chapter 7, "Global Trade and the Environment", in *The Case Against the Global Economy*, by Jerry Mander and Edward Goldsmith, published by Sierra Club Books, San Francisco, available in the UK from Random House, London. It has been edited and updated by Lucinda Labes.

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STILL PICTURES

In 1991 the energy used to transport the world's freight by ship was the same as that used by the entire economies of Brazil and Turkey combined. In the same year, airborne freight required as much energy as the total annual energy use of the Philippines.

Forest Destruction and Globalisation

Global integration of markets is opening up native forests to industrial exploitation at an unprecedented rate. Hard-won legal protections around the world are being killed off fast. Governments today are actively stimulating greater demand for wood products and further increasing their already generous subsidies to logging companies. **By Victor Menotti.**

Opening up native forests

One of the major driving forces behind globalisation is the removal of government restrictions on foreign investment, providing new access to resources previously unexploited by industry. To expand their control over the world's wood fibre supply, US logging companies have placed at the top of their priority list the restructuring of other nations' investments. For example, in biodiversity-rich Mexico, the adoption of World Trade Organisation (WTO) and North American Free Trade Agreement (NAFTA) investment rules drew massive investment into its forestry sector. Fifteen US companies relocated south of the border within eighteen months of NAFTA's implementation. Now, to establish similar investment rules globally, the industry is preparing to introduce an expanded investment agenda through the WTO.

Weakening forest protections

The need to be "competitive" has led governments everywhere to abandon forest protection laws and regulations. The United States suspended in 1995 all laws applicable to the logging of billions of board-feet of federal timber, and has institutionalised major exemptions from the Endangered Species Acts for corporate landowners. Likewise, following pressure from the logging industry, Canada in its attempt to remain internationally competitive, has failed to establish an Endangered Species Act, and its most-forested province, British Columbia, has gutted its weak Forest Practices Code of 1995 – just two years after creating it. Mexico's

1997 Forest Reform Law authorised the Environment Secretariat to waive protections for soil, water and biodiversity. In Brazil, constitutional protections for indigenous lands have been weakened by President Cardoso, allowing private interests to displace native people from the vast forests of demarcated areas. Together with his current push to reduce the maximum area which landowners in the Amazon cannot exploit (from 80 per cent to 50) Cardoso may be opening up the largest expanse of native forest in the world. The threat of invasive species is also on the rise globally due to the soaring trade in unprocessed wood products and the relaxation of safeguards at the border.

Increasing subsidies for forest destruction.

Another pillar of globalisation is "competitive subsidisation", where governments provide industry with more and more hand-outs, again, to enhance their competitiveness in the global marketplace. For the industries destroying forests, transport infrastructure and below-market costs for natural resources are vital forms of government support. The US government spends nearly a billion dollars every year to log its National Forests, even though few roadless areas remain. Brazilian taxpayers will pay a hefty chunk of the government's planned transport infrastructure for the Amazon, designed to expedite and reduce costs for exporting the region's vast natural resources. Below-market prices for timber from public lands, particularly in the US and Canada, are being handed out more generously in response to stiffening glob-



ADRIAN ARBIB/STILL PICTURES

al competition. Although Canada's largest forest-exporting province, British Columbia, has for years sold public timber at one-third the price of the cost in the US, BC's Premier recently cut it by another 12 per cent in the name of boosting competitiveness.

MARK EDWARDS/STILL PICTURES

Encouraging consumption of wood products.

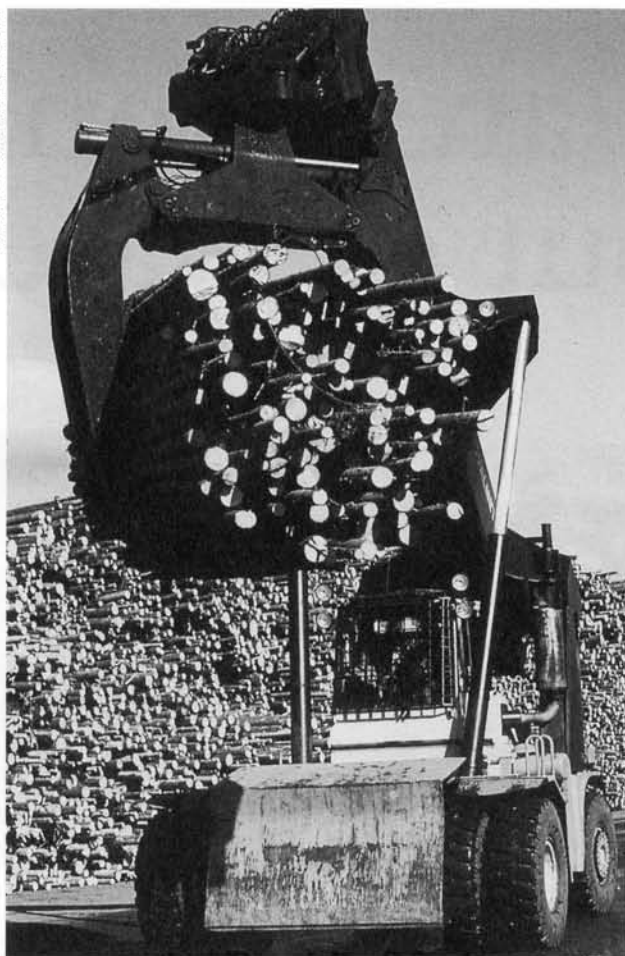
The systematic removal of trade barriers (both tariff and non-tariff) is aggravating pressure on forests. The Uruguay Round of GATT reduced tariffs to European and Japanese markets for finished paper; now the US wants them totally eliminated before the WTO Ministerial in Seattle at the end of 1999. Non-tariff measures targeted for elimination include embargoes on wood imports that may carry invasive species and the removal of local building codes that require non-wood materials. Globalisation also creates entirely new demands for paper products, a predictable result of proliferating fax machines, photocopiers and desktop printers. Global trade's long-distance shipping requires specialised wood-fibre packaging for everything from refrigerators to fresh fruit. Mexico's growth in wood fibre demand is less driven by new internal need than by the soaring demand for packaging materials in the thousands of *maquiladoras* lining the US border, where nearly every major manufacturer in the world has located duty-free entry into the world's largest and most lucrative consumer market.

Enter the New WTO Agreement

The WTO is preparing to introduce a broad agenda to protect foreign investments in forests. Among the ideas being advanced is that of 'National Treatment', which would require nations to treat foreign investors on the same terms as domestic ones. Brazil, Russia, Mexico, and other countries with significant tracts of native forests have traditionally limited foreign access to natural resources to prevent their exploitation from being determined by absentee owners. WTO investment rules would institutionalise "cut and run" logging around the world and prevent governments from favouring local entities which may tend to be more accountable to the land and its inhabitants.

Also on the investment agenda is a proposal to define the "expropriation of foreign investment" so broadly that it would allow foreign investors to use their national government to challenge the laws of another country for enacting measures that have the effect of reducing the foreign investor's "planned profits". If approved, new government measures to protect forests (indeed, anything in the public interest) could be challenged as an illegal "expropriation" that requires full cash compensation to the foreign investor. Known by critics as the "Pay the Polluter" principle, the WTO's proposed investment rules would send a chill over new environmental protections around the globe.

American industry is feeling the squeeze from competitors who operate in countries with little or no environmental regulation or enforcement. Realising that they cannot compete on such unequal terms, they now want to create a set of harmonised global rules to "level the playing field". If adopted, industry-set standards would



Workers will be pitted against workers in an international struggle to remain competitive, and national standards will fall dramatically in a spiral race to the bottom. If the new WTO agreement is successful, we will witness the near-complete destruction of the world's few remaining forests, the globalisation of suicidal standards.

lock-down weak protections in countries where there is major logging of native forests still to be done (Mexico, Chile, Brazil, Indonesia, Russia, etc.), while challenging stronger protections (as in the US) under the WTO. The WTO has undertaken a broad discussion on adopting industry-defined standards through the International Standards Organisation (ISO), and is also considering eco-labelling rules that could define some certification schemes as potential barriers to trade.

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Winners and Losers

US corporations will try to justify this latest agreement on the basis of it being a 'jobs creation initiative' for American workers, but industry trends put this claim into question. Firstly, Department of Commerce statistics show that as wood products exports have increased for the US, employment in the sector has decreased. This relationship undermines the conventional wisdom that increased exports create more jobs. But this is clearly false for the simple reason that as companies compete more directly in globalised markets, they are automating production (replacing workers with machines) to increase their competitiveness. Secondly, as of 1996, the Department of Labour's Trade Adjustment Assistance programme had certified over 5,500 US workers in the forest products sector who have lost their jobs as a result of the North American Free Trade Agreement (NAFTA). Moreover, \$4.5 billion was invested in new paper-making capacity between 1996-98, with most of it going to "low-cost" countries like Indonesia, Brazil and other developing nations with vast forest reserves and few protections for workers and the environment.

Thus, the result of this process will be that most of the new jobs created will be in lower-cost nations, where environmental regulations barely exist. Workers will be pitted against workers in an international struggle to remain competitive, and national standards will fall dramatically in a spiral race to the bottom. We will witness the near-complete destruction of the world's few remaining forests, the globalisation of suicidal standards, a loss of jobs in the North, and further exploitation of jobs in the South. □

Victor Menotti is the director of the Environment Programme at the International Forum on Globalisation in San Francisco.

We are Running out of Water

By Maude Barlow.

There is a common assumption that the world's water supply is virtually inexhaustible. This assumption is false. Fresh water represents less than half of one per cent of the total; the rest is either seawater or locked up in ice caps or soil. Worldwide, the consumption of water is doubling every 20 years – more than twice the rate of increase in population, placing enormous pressures on aquatic ecosystems. By the year 2025, as much as two-thirds of the world's population will be living under conditions of severe water shortage.

Aquifer depletion is already a serious problem in areas of intensive agriculture, where water is being used up many times faster than nature can replenish it. As developing countries industrialise, acids and other persistent pollutants are contaminating more and more aquifers. At the same time, exploitation of major river systems by damming and diversion is threatening another finite source of water. Worldwide, the number of large dams has grown from 5,000 to 38,000 since 1950, and the number of waterways altered for navigation has increased 50-fold since the turn of the century. Yet another problem is pervasive pollution, as industrial waste and 90 per cent of the sewage in developing countries is still discharged untreated into rivers and streams.

Irrigation for crop production, much of it large-scale, claims two-thirds of all water used by humans. At the same time, cities and industries are demanding a larger share of the scarce water supply; it will soon be impossible to serve both the needs of farming and urban areas. In developing countries, massive industrialisation is affecting the balance between people and nature: export-oriented agribusiness is claiming more and more of the water once used by family farms. The situation is perhaps most critical in China, which faces severe grain shortages in the near future because of water depletion and the shift of limited water resources from agriculture to industry and cities. The WorldWatch Institute predicts that China will soon have to restructure its entire economy in response to water scarcity.

In the United States, one billion pounds of weed and bug killers are used every year, and most of it ends up in the nation's lakes and rivers, 40 per cent of which are now unsafe even for fishing or swimming. And according to the Nature Conservancy, there has been a great loss of biodiversity in the Great Lakes, the world's largest freshwater system. It has lost two-thirds of its once-extensive wetlands, and over 98 per cent of its native species. All but one of England's 33 major rivers is suffering; some are now less than a third of their original depth.

The inequalities created by globalisation are dramatically affecting access of the world's poor to water, the most basic of human rights. While Americans use 1,300 gallons of water per person per day, more than 5 million people, most of them children, die each year from diseases caused by polluted drinking water.

Governments all over the world have been remiss in not recognising the crisis. While there has been some limited success in the reclamation of rivers, lakes and estuaries in the developed world,



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as well as some reduction in industrial and household water use, the results have not been sufficient to offset the other actions, of inactions, of governments, which mostly give low priority to water issues. Funding for research is abysmally inadequate, and political commitment and conservation awareness are sadly lacking all over the world.

A co-ordinated effort by national governments could change this pattern of waste within a decade. It has been estimated that, with available technologies, agriculture could cut its water demands by some 50 per cent, industry by up to 90 per cent, and cities by one third, with no reduction in economic output or quality of life. What is missing is political will. Privatisation of water services is also steadily advancing, and because many of the companies providing these services also have the ability to move into bulk export, dams and water diversion, governments are granting them access to water resources through the back door.

Finally, most governments have few laws or regulations to protect their water systems. Yet, while they leave their water resources unprotected by legislation, they are signing international trade agreements that supersede national law and explicitly surrender water rights to the private sector. For too long we have taken water for granted, and massively misjudged the capacity of the Earth's water systems to recover from our abuse. But just as we are beginning to face this reality, forces are already established that would see water become a private commodity, to be controlled and traded by transnational corporations.

Time, like water, is running out.□

Maude Barlow is the national chairperson of The Council of Canadians – Canada's largest public advocacy group – and a director of The International Forum on Globalisation (IFG). She is also the best-selling author of ten books on issues surrounding globalisation and free trade. This article has been adapted from *Blue Gold: The Global Water Crisis and the Commodification of the World's Water Supplies*, available from the International Forum on Globalisation, 1555 Pacific Avenue, San Francisco, CA 94109, USA, or from The Council of Canadians, 502-151 Slater Street, Ottawa, Ontario, K1P 5H3, Canada.

The Death of the Rural Community

Since its inception, the industrial economy has systematically undermined rural communities, and with globalisation, this process is accelerating throughout the world. **By Wendell Berry.**

Some five years ago, the *New York Times* announced that the US Census Bureau would “no longer count the number of Americans who live on farms”. In explaining the decision, the newspaper provided some figures as troubling as they were unsurprising. Between 1910 and 1920, America had 32 million farmers living on farms – about a third of the American population. By 1950, this population had declined, but farm population was still 23 million. By 1991 the number was only 4.6 million, less than 2 per cent of the national population. That is, the farm population had declined by an average of almost *half a million people a year* for 41 years. By 1991, 32 per cent of farm managers and 86 per cent of farm workers did not live on the land they farmed.

These figures describe a catastrophe that is now virtually complete. They announce that we no longer have an agricultural class here in the USA that is, or that can require itself to be, recognised by the government; we no longer have a “farm vote” that is going to be of much concern to politicians. American farmers, who for years have wondered whether or not they counted, may now put their minds at rest: they do not. They have become statistically insignificant.

We must not fail to appreciate that this statistical insignificance is the successful outcome of a deliberate national programme. It is the result of great effort, and of principles rigorously applied. It has been achieved with the help of expensive advice from university and government experts, the tireless agitation and exertion of the agribusiness corporations, the renowned advantages of competition – of our farmers among themselves and with farmers of other countries. As a result, millions of country people have been ‘liberated’ from farming, land ownership, self-employment and other idiocies of rural life.

What has happened to our agricultural communities is not exceptional any more than it is accidental. This is simply the way a large, exploitative, absentee economy works. For example, here is a *New York Times* news service report on “rape and run” logging in Montana:

“Throughout the 1980s, the Champion International Corporation went on a tree-cutting binge in Montana, levelling entire forests at a rate that had not been seen since the cut-and-run logging days of the last century. Now the hangover has arrived. After liquidating much of its valuable timber in the Big Sky country, Champion is quitting Montana, leaving behind hundreds of unemployed mill workers, towns staggered by despair and more than 1,000 square miles of heavily-logged land.”



PANOS PICTURES

The article goes on to speak of the revival of “a century-old complaint about large, distant corporations, exploiting Montana for its natural resources and then leaving after the land is exhausted”. And it quotes a Champion spokesman, Tucker Hill, who said, “We are very sympathetic to those people and very sad. But I don’t think you can hold a company’s feet to the fire for everything they did over the last 20 years.”

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If you doubt that exhaustion is the calculated result of such economic enterprise, you might consider the example of the mountain counties of eastern Kentucky, from which over the last three-quarters of a century, enormous wealth has been extracted by the coal companies, leaving the land wrecked and the people poor. The same kind of thing is now happening in banking. In the county next to mine, an independent local bank was recently taken over by a large out-of-State bank. Suddenly some of the local farmers and small business people, who had been borrowing money from

that bank for 20 years and whose credit records were good, were refused credit because they did not meet the requirements of a computer in a distant city. Old and once valued customers now find that they are known by category rather than character. The directors and officers of the large bank have reduced their economic thinking to one simple question: "Would we rather make one big loan or many small ones?" Or, to put it only a little differently: "Would we rather support one large enterprise or many small ones?" They have chosen the large over the small.

This economic prejudice against the small has, of course, done immense damage for a long time to smaller family-sized businesses in city and country alike. But this prejudice has often overlapped with an industrial prejudice against anything rural and against the land itself, and this prejudice has resulted in damages that are not only extensive but also long-lasting, or even permanent.

We in America have much to answer for in our use of this continent from the beginning, but in the last half-century we have added to our desecrations of nature a deliberate destruction of our rural communities. The statistics I cited at the beginning are incontrovertible evidence of this. But so is the condition of our farms and forests and rural towns. If you have eyes to see, you can see that there is a limit beyond which machines and chemicals cannot replace people, and there is a limit beyond which mechanical or economic efficiency cannot replace care.

The great, centralised economic entities of our time do not come into rural places in order to improve them by 'creating jobs'. They come to take as much of value as they can, as cheaply and as quickly as they can take it. They are interested in 'job creation' only so long as the jobs can be done more cheaply by humans than by machines. They are not interested in the good health – economic, natural or human – of any place on this Earth.

And if you should undertake to appeal or complain to one of these great corporations on behalf of your community, you would discover something most remarkable: you would find that they are organised expressly for the *evasion* of responsibility. They are structures in which 'the buck' never stops. The buck is processed up the hierarchy until finally it is passed to 'the shareholders', who are too widely dispersed, too poorly informed, and too unconcerned to be responsible for anything. The ideal of the modern corporation is to be (in terms of its own advantage) anywhere, and (in terms of local accountability) nowhere. The message to country people, in other words, is this: Don't expect favours from your enemies.

That message has a corollary that is just as plain and just as often ignored: the government and educational institutions from which rural people should by right have received help have not helped. Rather than striving to preserve rural communities and economies, and an adequate rural population, these institutions have consistently aided, abetted and justified the destruction of every part of rural life. They have eagerly served the superstition that all technological innovation is good. They have said repeatedly that the failure of farm families, rural businesses and rural communities is merely the result of progress and efficiency and is good for everybody.

We are now pretty obviously facing the possibility of a world that the supranational corporations, and the governments and educational systems that serve them, will control entirely for their

own enrichment – and incidentally and inescapably, for the impoverishment of all the rest of us. This will be a world in which the cultures that preserve nature and rural life will simply be disallowed. It will be, as our experience already suggests, a *post-agricultural world*. But as we now begin to see, you cannot have a post-agricultural world that is not also post-democratic, post-religious, post-natural – in other words, it will be post-human, contrary to the best that we have meant by "humanity".

In their dealings with the countryside and its people, the promoters of the global economy are following a set of cold, simple principles. They believe that a farm or a forest is, or ought to be, the same as a factory, that care is only minimally necessary in the use of the land, and that affection is not necessary at all. They

believe that, for all practical purposes, a machine is as good as a human, and that the industrial standards of production, efficiency and profitability are the only standards that are necessary to apply. They believe that the topsoil is lifeless and inert, that soil biology is safely replaceable by soil chemistry, and that the nature or ecology of any given place is irrelevant to the use of it. And they believe that there is no value in human community or neighbourhood, and that technological innovation will produce



only benign results.

These people see nothing odd or difficult about unlimited economic growth or unlimited consumption in a limited world. They believe that knowledge is property and is power, and that it ought to be. They believe that education is job-training. They think that the summit of human achievement is a high-paying job that involves no work. Their public boast is that they are making a society in which everybody will be a "winner" – but their private aim is to reduce radically the number of people who, by the measure of our historical ideals, might be thought successful: the independent, the self-employed, the owners of small businesses or small usable properties.

The argument for joining the new international trade agreements has been that there is going to be a global economy whether we like it or not, and that we must participate or be left behind. But there are unanswered questions about the global economy, two of which are paramount: how can any nation or region justify the destruction of a local productive capacity for the sake of foreign trade? And how can people who have demonstrated their inability to run national economies without inflation, usury, unemployment, and ecological devastation, now claim that they can do a better job in running a global economy?

American agriculture has demonstrated by its own ruination that you cannot solve economic problems just by increasing scale and, moreover, that increasing scale is almost certain to cause more and separate problems – ecological, social and cultural. We can't go on too much longer without considering the possibility that we are simply *unable* to work on the scale to which we have been tempted by our technological abilities, and that strong local communities, supported by thriving rural economies, are the bedrock on which human happiness is to be built.□

Wendell Berry is a native of Henry County, Kentucky, where he farms, teaches and writes. He is the author of over 40 volumes of essays, poems, stories and novels, which have earned him many honours and awards. He is perhaps best known for his book *The Unsettling of America: Culture & Agriculture*. This article, and the following article by the same author has been adapted from two previously published articles entitled: *Conserving Communities* and *Does Community have Value?*

Globalisation and Food Scarcity

By Andrew Kimbrell and Donald E Davis.

Despite a renewed concern for the environment in many parts of the world, the deployment of Western science and technology into developing countries continues at a rapid pace, threatening to destroy community structures that have existed on this planet for centuries.

In many cases, these new developments are related to the production or development of communications equipment such as computers and related machinery, or high-tech breeding techniques for use in plant and animal husbandry. While the former technology types present obvious social and political consequences for developing countries in terms of creating new forms of economic dependence, the introduction of advance plant and animal breeding techniques not only threatens to erode the cultural fabric of societies around the world, but also endangers the flora and fauna needed for their continued survival. In Latin American countries like Brazil, Mexico, Colombia and Venezuela, native plants and animals – the evolutionary products of millions of years of natural genetic selection and evolution – are facing extinction because of these agricultural practices [See *The Ecologist* special issue on Monsanto, Vol.28 No.5].

The multinational agribusiness firms



Weighing a malnourished child in Zambezia Province, Mugalama.

now introducing Western agricultural practices into developing countries around the globe have done so with little interest in preserving long-term biological diversity. Indeed, there has also been little serious discussion of the long-term environmental effects of these First World husbandry methods on local or regional ecosystems. Compounding the problem for development theorists and policy makers alike is the fact that many of these techniques are also being promoted internally, within the countries themselves, by local elites or emerging entrepreneurs. However, because these high-tech agriculture practices almost always require the use of hybridized or genetically engineered plant breeds owned and developed in the First World by multinational corporations like Novartis and DuPont, outside agents will be able to continue their control of the production process without necessarily owning all of the production means.

Exporting the modern industrial

The World Trade Organisation and Agriculture

The free-trade vision expressed by the World Trade Organisation (WTO) Agreement on Agriculture is an integrated global economy in which all countries produce specialised agricultural commodities, and supply their food needs by shopping in the global marketplace. Food is grown, not by farmers for local consumers, but by corporations for global markets. The consequences of this global model is a disaster for the food security of poor countries, as subsistence farms are lost to export producers, but are also extremely problematic for environmental and food safety reasons as well.

Consider for example that the globalisation of food production and trade necessarily requires that agricultural commodities be transported long distance, and be processed and packaged to survive the journey. In addition to sacrificing quality and variety for durability, this system of agricultural trade requires enormous inputs of energy. In fact, when account is taken of all energy inputs, global food production and trade probable consumes more fossil fuel than any other industrial sector. That is why international

agricultural trade policies are likely to substantially increase greenhouse gas emissions, and make climate objectives much harder to achieve.

Other important aspects of the WTO agenda for agriculture can be found in other WTO agreements dealing with food safety standards and biodiversity (these are described under the headings "Sanitary and Phyto Sanitary Standards" and "Intellectual Property Rights"). When taken together these agreements set the stage for the next "green revolution" – the one that spreads biotechnology in the form of genetically modified foods – terminator genes that prevent seeds from reproducing so farmers have to buy rather than grow their own seedstock – vegetables that are actually lethal to insects that eat them, at least until whole populations of pests develop immunity – and plants that are virtually immune to pesticides so they can be sprayed or applied with impunity. In the process the dominion of one of the world's largest agricultural corporations is further expanded and assured. – Steven Shrybman, *the World Trade Organisation: A Guide for Environmentalists*

Globalisation is Urbanisation

One needs to step back and look at the big picture to see clearly that the process of globalisation is also a process of urbanisation. Across the world, rural populations are in decline, and cities are swelling on a massive scale. In the North, most people already live in cities and in the South, the situation is rapidly moving that way. The world's urban population, as you read this, is increasing by a million people a week. Within the next decade, according to current trends, most of the world's people will be living in cities.

This, like the globalisation process itself, is not 'natural' or 'inevitable'. Instead, it is a result of the economic forces – subsidised by governments around the world – that are creating a centralised, globalised world. In an economy where vast corporations compete for growing numbers of consumers, it is more 'efficient' for them if people are in cities. And when fossil fuel prices are artificially low – not reflecting the capital as well as environmental costs of their extraction and use – urban populations can be fed, watered and clothed from thousands of miles away more cheaply than they can from their local area. Vast cities are unsustainable – they have a much larger ecological footprint *per capita*. Consumption is much greater. But this is not reflected in standard economic measurements.



Antalya, Turkey

It is not just rural areas that are suffering. Small – and increasingly even large – towns are dying too, as more and more people are forced to seek employment in 'megapolises' like London, New York or Tokyo (which, at the latest count, was home to 27 million people). In these places, people rely on transported food, transported water and transported building materials. In smaller towns, and in rural area, by contrast, most of these resources are available locally. Mega-cities also create artificial scarcity. People in cities all around the world are competing for the same standardised, monoculture products –

jeans, hamburgers, cars, televisions, etc. Even the building materials are standardised.

Until the subsidies and financial incentives that lead to globalisation (see Gorelick in this issue) are reversed, the trend towards urbanisation will continue. Smaller, counter-trends like 'downshifting' – moving to the countryside to pursue a quieter way of life – or 'telecommuting' – taking your computer to a country cottage and working from home – are generally available only to the relatively wealthy. Across the world, globalisation means urbanisation. – *Helena Norberg-Hodge*

agricultural system throughout the world has had a profound impact on the world's environment, dramatically reducing both biological and cultural diversity. Now, with a looming biotech revolution, those people, North and South, who are trying to maintain their traditional ways of life, are facing an even greater challenge. Miguel Altieri writes that there are now as many as 13 million hectares worldwide devoted to crops that have been genetically modified. And because many of these crops have been engineered to develop a tolerance to herbicides such as Monsanto's Roundup, there is a strong likelihood that herbicide use will increase in those areas where these crops are planted since farmers will be much more likely to purchase the weed-killing chemical.¹

Altieri also notes that when genetically modified crops fail to resist the onslaught of native insects, the result is the increased use of pesticides, which, in turn, creates new strains of insects that are pesticide resistant. This keeps local farmers on a "pesticide treadmill," as each successive pesticide loses its effectiveness and forces them to buy more and new chemicals. Pesticide use has already reached an alarming rate worldwide – at or around 5 billion pounds per year – a symptom of a growing environmental crisis within modern agriculture. Indeed industrial agriculture could not exist without the exorbitant use of these often highly toxic pesticides, which are in effect designed to accommodate artificial agricultural practices.²

At the heart of the industrial world-view now being exported to every corner of the Earth lies the assumption that modern agriculture will ultimately solve world hunger by producing higher yields for an ever-growing population. But this is a dangerous myth and one easily refuted by even a cursory examination of the available literature on Third and Second World food production and its rela-

tionship to hunger. Modern agriculture, where implemented, has routinely led to the displacement of people, causing dramatic increases in the number of hungry people. In South America, for example, the number of those people living in hunger went up by 19 per cent as *per capita* food supplies simultaneously rose almost 8 per cent. Industrial agriculture creates hunger by separating indigenous populations from their local environments, thereby destroying their ability to grow their own food, and ultimately, their own food independence. The end result is the flight of millions of peasants from their rural homelands to the ever-spreading urban sprawls, a phenomenon not unlike European enclosure movements of the sixteenth and seventeenth centuries. Today more than half a billion people in the Third World are landless, or do not have sufficient land to grow their own food.□

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PANOS PICTURES

The Triumph of Technology

Andrew Ure, the English economist who praised the Industrial Revolution as it swept over England in the early 19th century, put it clearest: "This invention," he wrote, about a machine that replaced high-paid workmen, "confirms the great doctrine already propounded, that when capital enlists science in her service, the refractory hand of labour will always be taught docility." Industrial technology, in other words, triumphs over people. **By Kirkpatrick Sale.**

This is no surprise: that is what it is designed to do. Labour-saving machines save labour – replace it, reduce it, routinise it, cheapen it. Then as now all that has changed is the immensely more sweeping and powerful scope of modern technology, which now, in this computer-driven second Industrial Revolution, has a global reach and a financial capacity that makes its impact far more devastating, and on a far greater scale, than ever before.

Let us begin by looking at employment in the leading industrial nations over the past twenty years, since the microchip seriously began to change the way the global economy does business. Almost without exception, the picture is one of a vast displacement of labour by ever-more-sophisticated forms of automation, an acute reduction in farm and manufacturing jobs and an increase in make-work unproductive "service" jobs.

For most of the time, the effect of this displacement has been disguised by government funding and government employment, and fuelled by increasingly onerous debts. In the US, for example, there was a steady expansion of jobs in all levels of government and government-sponsored industries like defence, aerospace and computers, and those people not taken care of that way were given expanded welfare, training and entitlement programmes. This cost

an immense amount of money, and it quickly drove the US into becoming the world's largest debtor nation by 1985, a position it has never relinquished.

But this approach couldn't last, and in the mid-1980s, it began to unravel throughout the industrial world, effectively collapsing with the end of the Cold War in 1989. Governments could not go on with bloated budgets and mounting deficits, and as they retreated, unemployment mounted and recession set in. Jobs vanished. Corporations found they could do without much of their middle-management, because computers could handle the load, and without much of their meaningless low-level positions because they could be automated away. With technologies that enabled a head-

"Under all the clamour and pomp and pride of industrialism, a new idea is circulating as a still, small voice; the idea that Man is not the superior conqueror of nature by his own nature but the essential part of a natural order that comprises a great deal more than himself. Man must learn to conform to the laws of that order and to live in harmony with the natural environment, and the cause of most of the trouble of the world is that he has failed to do so." – H. J. Massingham



"The logical end of mechanical progress is to reduce the human being to something resembling a brain in a bottle. That is the goal towards which we are all moving, though, of course, we have no intention of getting there; just as a man who drinks a bottle of whisky a day does not actually intend to get cirrhosis of the liver."

– George Orwell.

quarters staff to monitor any factory in the world (and cheaply too: basic phone rates from New York to London, for example, have fallen from \$24 to 36 cents), employment went quickly overseas for dirt-poor wages.

Now in theory, technology is supposed to increase jobs in the long run, however many it may eliminate in the short. It is supposed to increase production, stimulate demand, create new goods and services, and keep everybody happy. The cruel fact is that this theory does not work now, and never has: technology always does away with jobs (particularly good jobs), and it has always been government that has stepped in, with wars and colonialism and defence spending, to create additional ones.

Let us look again at what has happened in the US in the past decade alone. First, technology has eliminated vast numbers of jobs across all sectors – an estimated 9.5 million between 1988 and 1998, far greater than any other post-war period. 600,000 went in 1998 alone, with the prospects even worse for this year as the pace of mergers – and hence consolidation and layoffs – increases. And according to a 1992 Carnegie Institute study, 6 million more manufacturing, and no fewer than 38 million office jobs, were at risk to automation. As Wassily Leontief, the Nobel economist, has put it, "The role of humans as the most important factor of production is bound to diminish – in the same way that the role of the horse in agricultural production was first diminished, then eliminated, by the introduction of tractors."

Second, technology has forced the closing of plants made obsolete, and the elimination of entire industries made unprofitable, and at the same time it has enabled corporations to shift production to low-wage countries in Latin America and East Asia. American investment abroad has risen by more than 200 per cent since the 1970s, and the total global economy amounted to a staggering \$24 trillion in 1998.* All of this can now be held together by global trading and monitoring systems on the Internet, which in turn means only a handful of executives are needed to oversee vast corporate enterprises.

Third, although new jobs have been created in the US as the old ones go – maybe twice as many as have been eliminated – they tend overwhelmingly to be low-level, low-skill, rigidified, part-time, temporary and without benefits and security – "disposable jobs", the *New York Times* called them in its 1993 analysis. These "jobs without hope" make up 40 to 50 per cent of the workforce. That is why, even as the economy grows very nicely for the rich (incomes up 20 per cent from 1989 to 1997), the middle class is

actually losing income while working longer hours (a drop of nearly a full per cent in the same years) and the poor are getting significantly poorer (a drop of 2.4 per cent).

And what is true for the US has been generally true throughout the industrialised world. In some places in Europe, particularly with unabating unemployment rates, it has been far worse. And the hard fact is, that this is what was *supposed* to happen. This is why the technology was invented and developed and spread in the first place. This is what corporations have always been about, only now they have the fastest and most powerful machines yet devised at their disposal.

They have also achieved one more thing in the past decade, and this has made the triumph of the corporate monoculture complete: the enfeeblement of government as a countervailing force. Corporate power now so completely outranks government power [see elsewhere in this issue] that for most of the time the industrial sector gets to set any terms of employment it wants, and neither local

The Clinton-Blair strategy now dominant in the West has been about caving in to whatever extravagant demands there may be for an increased corporate welfare state.

communities, regional authorities, nor national bureaucracies seem able to stop it. It is not just minor countries like Malaysia and Indonesia, but powerful ones like Russia and Brazil, that are forced to toe the corporate line, and if they are recalcitrant, corporations and financial traders can slap them around, with the IMF coming along afterward to keep things in order. As for the governments of the industrial countries themselves, the Clinton-Blair strategy now dominant in the West has been to dismantle as much of the *public* welfare state as possible to give the workforce no options, and to cave in to whatever extravagant demands there may be for an increased *corporate* welfare state.

How long can it all go on? Well, Rome tried to run things this way. It had a global economy for the benefit of the richest few, an army to keep foreign markets open and docile, a police force to contain the millions of shiftless and idle, and a culture of celebrity and violence to distract the attention of the masses. It worked for maybe half a century before it began to crack apart, rotting away at the centre, coming apart at the edges, and sliding down the long slope to utter collapse.

Given its vastly greater power, resting on a base of very sophisticated technology, the industrial technostucture of today may last longer than that. On the other hand, given its greater ability to produce economic and social disasters, including the cancer of job displacement, it would not make much sense to bet on it.□

*You don't know what a trillion is? If Jesus gave away a million dollars a day since his birth to the present, he would be 270 billion short of a trillion.

Kirkpatrick Sale is the author of eight books, including *Rebels Against the Future: The Luddites and Their War on the Industrial Revolution*, *Lessons for the Computer Age*, and *The Conquest of Paradise: Christopher Columbus and the Columbian Legacy*.

Why Globalisation is Bad for Your Health

Two centuries of industrial development and two decades of accelerated economic globalisation have not, unfortunately, improved human health in any meaningful or permanent way. On the contrary, we are now facing an unprecedented barrage of new or unknown diseases, and the return of ever more virulent forms of those diseases we thought we had conquered. What's more, contrary to what we are taught, our ancestors lived lives relatively free from many of today's infectious and degenerative diseases. **By Zac Goldsmith.**

"If you make an enemy of the earth, you make an enemy of your own body". – **Mayan Shaman.**

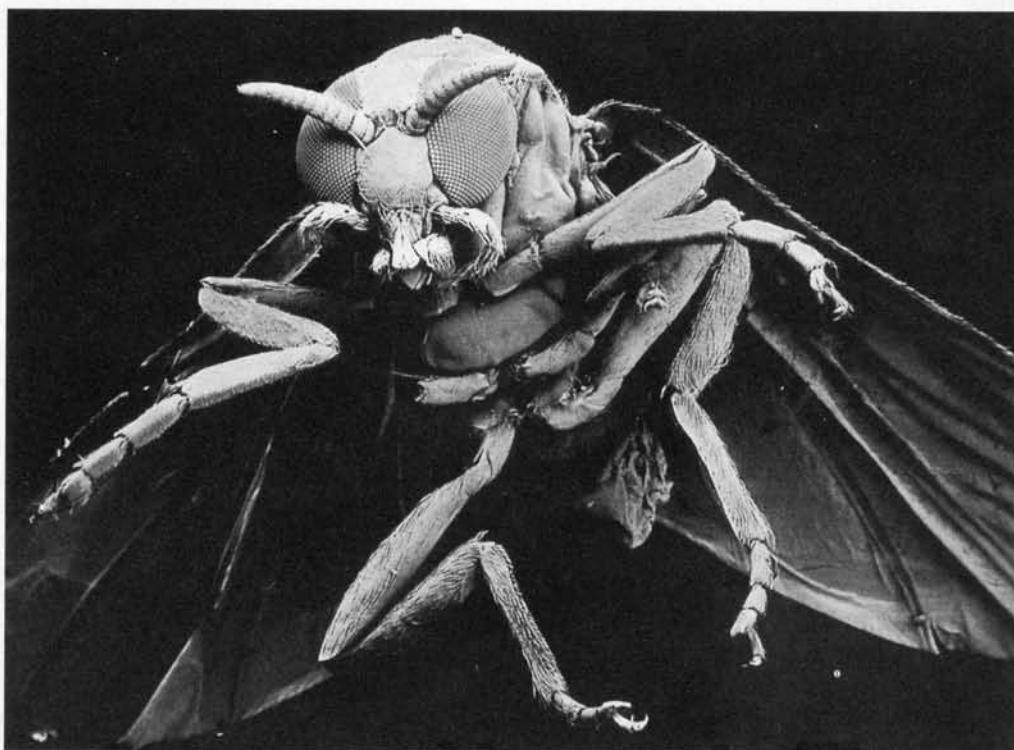
Today, the assumption goes, we live longer, healthier lives than any of our ancestors, and when confronted with disease we are equipped to stamp it out with modern medicines and new technology. It is this banner of pride that seems, above all else, to justify the direction in which the world is moving. But can that banner be justified? Does it pass the test of uncompromised scrutiny?

Pre-Industrial Societies

If 'progress' has brought enhanced health for its recipients, then it is fair to assume that traditional, pre-industrial, peoples suffered from a greater number of diseases and ailments, and that they lived shorter, more 'brutish' lives than we do today. But *are* these assumptions fair? In fact, we now know that many traditional peoples lived lives free from many of today's common diseases. This we know largely as a result of numerous studies carried out at the beginning of this century, when pre-industrial civilisations still occupied much of the world.

One such study, commissioned in 1912 by the Prudential Insurance Company of America, was entitled, *The Mortality From Cancer Throughout The World*.¹ Its author was Fredrick L. Hoffman, Chairman of the Committee on Statistics of the American Society for the Control of Cancer. Based on thousands of separate reports and all the available data, one conclusion reached by the author was that "the rarity of cancer among native man suggests that the disease is primarily induced by the conditions and methods of living which typify our modern civilisation." He goes on to explain that "the negative evidence is convincing that in the opinion of qualified medical observers, cancer is exceptionally rare among the primitive peoples."

In 1914, Livingstone French Jones wrote, in a study of the Thlingets of Alaska,² that "while certain diseases have always been found among the Thlingets, others that now afflict them are of recent introduction. Tumours, cancers and toothache were

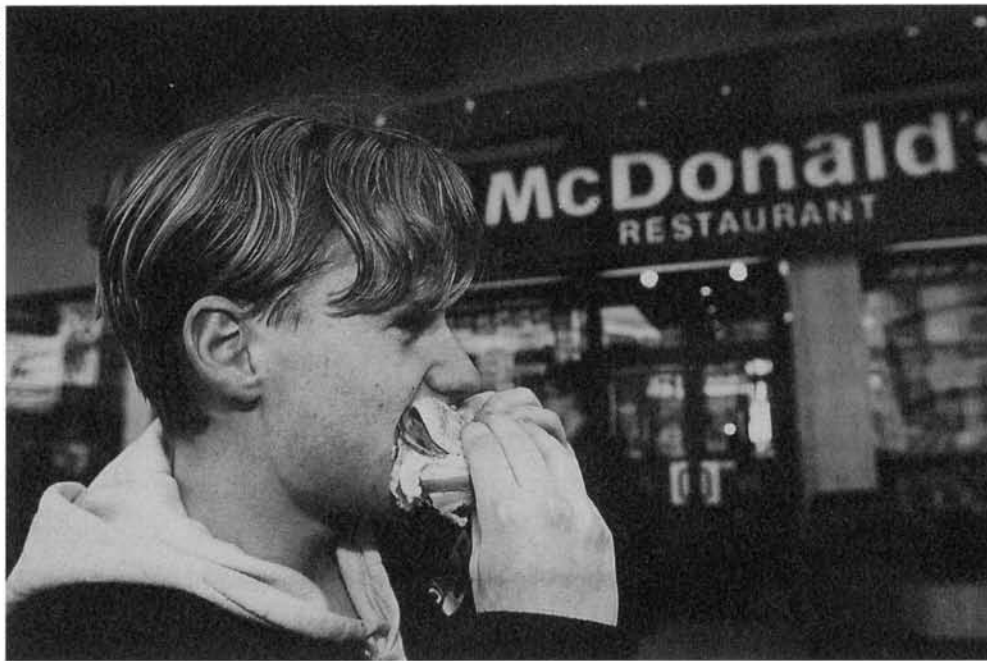


STILL PICTURES

unknown to them until recent years." And Sir Robert McCarrison,³ a surgeon in the Indian Health Service, observed at the beginning of the century "a total absence of all diseases during the time I spent in the Hunza Valley [seven years]... During the period of my association with these peoples, I never saw a case of ... cancer." Also writing of the Hunzas Dr Allen E. Banik and Renée Taylor, in their 1960 book *Hunzaland*,⁴ describe "their freedom from a variety of diseases and physical ailments" as "remarkable ... cancer, heart attacks, muscular complaints, and many of the common childhood diseases... are unknown among them."

In the preface to Vilhjalmur Stefansson's 1960 book, *Cancer: Disease of Civilisation?*⁵ Renée Dubos writes "history shows that each type of civilisation, like each social group and each way of life, has diseases which are peculiar to it... From this broad survey," he continues, "there emerges the impression that certain diseases such as dental caries, arteriosclerosis and cancers are so uncommon among certain primitive people as to remain unnoticed."

This story remains more or less the same throughout the world. "On my arrival in Gabon, in 1913" wrote Nobel laureate Albert



"It is the nature and essence of industrial civilisation to be toxic in every sense." – Dr G. Schenk

Schweitzer,⁶ "I was astonished to encounter no case of cancer." In 1958, having practised in Alaska for more than fifteen years, Dr L.A. White⁷ wrote that: "my work led me to these conclusions:

1. Hypertension and Arteriosyropic diseases were practically non-existent among native peoples:
2. Diabetes was extremely rare:
3. Malignant disease was extremely rare – in fact I had only one proven case. I saw no strokes nor coronary heart disease."

Development and Disease

These, and numerous other such studies, confirm the often-excellent health and living standards of 'primitive' peoples at the turn of the century. And as industrialisation gradually reached those people, region by region, the majority of observers were also able to document with alarm what they saw to be a clear parallel between the march of 'civilisation' and a general deterioration of health.

"We are beginning to observe that the more an islander takes on the ways of the West the more prone he is to succumb to our degenerative diseases." – Ian Prior, *The Price of Civilization*

According to Ian Prior, author of *The Price of Civilization*,⁸ "we are beginning to observe that the more an islander takes on the ways of the West the more prone he is to succumb to our degenerative diseases. In fact, it does not seem too much to say our evidence now shows that the further the Pacific natives move from the quiet, carefree life of their ancestors the closer they come to gout, diabetes, atherosclerosis, obesity, and hyper-tension."

John H. Bodley, author of *Victims of Progress*,⁹ noted that in a number of areas of Africa affected by the advance of Western civilisation, the people were quite conscious of their own physical deterioration. "At a mission school in Africa, [Dr. Weston Price] was asked by the Principal for help in explaining to the native school children why they were not physically as strong as children who had had no contact with schools... On an island in the Torres Strait, however, the natives knew exactly what was causing their problems and resisted – almost to the point of bloodshed – government efforts to establish a store that would make imported food available."

The Maoris of New Zealand, who in their Aboriginal state were famous for their health and near perfect development, led Weston

Price¹⁰ to the same conclusion: "Their modernisation was demonstrated not only by the high incidence of dental caries, but also by the fact that 90 per cent of the adults and 100 per cent of the children had abnormalities of the dental arches." Dr William Hay¹¹ noted in 1927 that just as tribes living naturally begin to conform to the industrial way, "so does cancer begin to show its head." And according to Dr G. Schenk,¹² "it is the nature and essence of industrial civilisation to be toxic in every sense." The number of authoritative voices which reinforced this view, are too many to be mentioned in any great length. "Contact with white men," concluded Sir Wilfred Grenfell¹³ in 1909, "has blotted them [indigenous people] out like chalk from a blackboard."

Many doctors and health experts today would say that if relatively few diseases were diagnosed among traditional people, it was often because they died prematurely before such diseases tended to set in. What is more, the same experts would say, at a time when traditional peoples still existed in significant numbers, our own methods of diagnosis were relatively primitive and inaccurate, and so the statistics are likely to be unreliable.

But the experts, very often, are wrong. For a start, the assumption that pre-industrial peoples had shorter lifespans than us is largely a modern myth. The Bible, written 2,000 years ago, describes the allotted lifespan of humans as "threescore years and ten," suggesting that old age was common among societies far into the past. And more recent studies of indigenous traditional peoples have also suggested that old age is not a modern blessing. In 1948, Dr Romig,¹⁴ "Alaska's most famous doctor", described a "general impression of average good health and considerable longevity" presented by the Eskimos he had studied. This view was reaffirmed by Dr Simpson¹⁵ in 1852 who described the Eskimos as "a healthy and happy people of apparently high longevity", and by Dr Greist,¹⁶ who noted that "for untold centuries, the Eskimo of the far North was healthy. He lived to a very great age."

The same has been said of the Kogi Indians of Colombia¹⁷ and of the Hunzas, who were famous for their remarkable longevity. Banik¹⁸ wrote that they "today live in health and happiness to the age of 120 years . . . the healthiest, longest lived people in the world." Australian Aboriginal communities were also noted for containing a large number of old people.¹⁹

Probably the key health difference between modern and pre-industrial societies is the child mortality rate, which, before the advent of hospitals, respirators and modern medicines, was often high. It is for this reason that the average life-expectancy of pre-industrial peoples is often lower than our own – the significant number of young deaths often brings the average figure down to fifty or lower. But take child mortality out of the picture for a moment, and it is seen that for those pre-industrial people who survived beyond the age of, say three, there was often more chance of surviving into a healthy old age, without being afflicted, as today's elderly and middle-aged people often are, by cancer, stroke, diabetes, heart attacks and other 'diseases of civilisation.'

And it is not the case that old studies of traditional peoples are necessarily inaccurate or unscientific. In a well-documented case

where Dr Puzin,²⁰ having studied 10,000 women in Senegal, was only able to detect one case of breast cancer, this "poor diagnosis" argument clearly fails to hold water. Had Dr Puzin selected a random 10,000 women in the United States, he could have expected to diagnose at least 1,000 breast cancer victims.

Health, Wealth and Happiness

It is important to note that by all accounts, traditional, pre-industrial people were widely noted for their overall *happiness* – a mental state that is becoming increasingly rare in the West. "The Eskimos living absolutely isolated from civilisation of any kind", wrote Roald Amundsen²¹ in 1908, "are undoubtedly the happiest, healthiest, most honourable and most contented among them... my sincerest wishes for our friends the Nechilli Eskimos is, that civilisation may *never* reach them." In 1970, Professor James Neel²² wrote in *Science*, "I find it increasingly difficult... to see in the recent reproductive history of the civilised world a greater respect for the quality of human existence than was manifested by our remote 'primitive' ancestors."

'Wealth' is clearly a subjective qualification, which depends

Ross Hume Hall has described the breasts of average American women as "toxic waste dumps", such is the level of their contamination. He points out that were breast milk a saleable commodity in the United States, the average mother's contribution would not pass the most lenient safety test of the US Food and Drugs Administration.

largely on ones' means of measuring well-being, but in any definition of wealth, good *health* (both physical and emotional) usually figures fairly high on the list. If this is so, then a close look at the lives and health of modern people, within the context of what we now know to be true of the lives of traditional people, throws up some awkward facts.

The Childhood Obstacle Course

Today we live in a dangerous world. From the very earliest age, we are set on an obstacle course, whose obstacles are often fatal.



"The Eskimos living absolutely isolated from civilisation of any kind are undoubtedly the happiest, healthiest, most honourable and most contented among them... my sincerest wishes for our friends the Nechilli Eskimos is, that civilisation may never reach them."

The problems start even before birth: recent studies have confirmed that the human sperm count is dramatically falling across the developed world. Research carried out in Scotland, for example, has shown that those born after 1970 have sperm counts 25 per cent lower than those born before 1959.²³ Ross Hume Hall²⁴ author of *Health and the Global Environment*, has described the breasts of average American women as "toxic waste dumps", such is the level of their contamination. He points out that were breast milk a saleable commodity in the United States, the average mother's contribution would not pass the most lenient safety test of the US Food and Drug Administration.

Nor are the latest medical predictions for the young very promising. According to the UK's Association of General Practitioners of Natural Medicine (AGPNM),²⁵ "diabetes rates among young people have doubled over the past twenty years. Despite, or because of, bronchial inhalers the death rate from asthma is also on the increase. One in every ten children suffers from asthma." According to Sally Fallon,²⁶ a quarter of a million children are born each year with birth defects, "who then undergo expensive heroic surgery, or are hidden away in institutions. Other degenerative diseases", she continues, "– arthritis, multiple sclerosis, digestive disorders, osteoporosis, Alzheimer's, epilepsy and chronic fatigue – afflict a significant majority of US citizens."

Chemical Pollution: The Unseen Killer

The advent of widely-used artificial chemicals in almost every walk of life has created new health problems in the developed world. In more than 20 states in the USA, for example, public health authorities have warned children, women of child-bearing age, and pregnant and lactating women to avoid eating certain fish from contaminated lakes. This follows research which has revealed that mercury, one of many 'Persistent Organic Pollutants' (POPs), concentrates as it moves up the food chain, accumulating in carnivorous fish to levels up to 100,000 times the concentrations in the surrounding water.²⁷

Current statistics reveal that there are more than 200,000 deaths worldwide each year from acute pesticide poisoning.²⁸ There is barely a patch of land or sea as yet unaffected by pesticides and other chemical pollutants. Organochlorine pesticides are now present throughout the food chain, even in zooplankton and fish in the Arctic Ocean. "One study in Africa", according to *Critical Condition*,²⁹ "found the presence of chlorinated pesticides in over 80 per cent of egg samples, poultry liver, and bovine liver and kidney."

This is not altogether surprising. According to Vyvyan Howard,³⁰ there are currently 70,000 man-made chemicals in use, with another 1,000 added each year. The majority of these chemicals have been foisted upon the world without having been tested by the regulators, and those that have, have been analysed individually, removed from the context of the natural world in which they are being applied. What's more, it is known that these individual chemicals react synergistically when mixed with other chemicals, often rendering even the more benign chemicals lethal when combined with others. Testing these chemicals, even individually, would be a daunting task to say the least, but the idea of testing them thoroughly, and therefore in various combinations, would be impossible. "To test just the commonest 1000 toxic chemicals in unique combinations of three would", according to Howard, "require at least 166 million different experiments (and

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– Campbells Soup Company, Annual Report, 1994

The story of St Kilda

The Hebridean island of St Kilda was heavily documented by a number of writers from the 18th century until its collapse in 1930. Books have since been written about its decline from a society of self-sufficiency, custom, arts and plenty, with its own religion, language and unique cliff-based culture, to one of moral and physical poverty, and eventual collapse.

"As long as St Kilda remained remote from the world," wrote Charles Maclean in *Island on the Edge of the World* "its society was viable, even utopian." But in the 19th century, the island was "discovered by missionaries, do-gooders, and tourists, who under the impression that they were bringing to St Kilda the benefits of civilisation brought money, disease, and despotism."

Before this happened, the general health of St Kildans was held in awe by many who visited. One of the early 19th century visitors, Dr Macculloch acknowledged "the good physique of the males", who, he said, "were well-looking, and appeared, as they indeed are, well fed; and bearing the marks of easy circumstances, or rather wealth." George Seton, in 1877,

wrote that, "The remarkably healthy look of the children in arms was the subject of universal comment." He quotes a Mr Wilson who described the men as strong, handsome, and "with bright eyes, and an expression of great intelligence."

Maclean's own research revealed that . . . "in the days when they lived in almost complete isolation from the rest of the world, the St Kildans had been a strong and healthy race afflicted by few diseases." "They never had a potion of physic given them in their lives," wrote Martin, another student of the St Kilda experience, "nor know anything of phlebotomy; a physician could not expect his bread in this little commonwealth." But as contact with civilisation increased, the islanders became susceptible to previously-unknown diseases, and by the 20th century, debilitating weakness had set in: "they suffered more and more frequently from colds, coughs, headaches and rheumatism, while dyspepsia, scrofula, ear disease and dysentery soon became common complaints." Unable to withstand the disastrous effects of contact with the

mainland, the St Kildan culture gradually deteriorated, the population dwindled, and in 1930 the remaining islanders, unable to survive there any longer, were evacuated to the mainland.

Though the culture and ways of the St Kildans were wholly unique, the story of their demise is sadly not. The same has been documented elsewhere, from Ireland, where Hugh Brody describes a small town in which the local nurse claims that she dispenses "more anti-depressants than headache tablets", or the Portuguese village of Alto, where according to Robin Jenkins, since a road linking it to the outside world was built in 1951, "most of the men... have become alcoholics."

— Zac Goldsmith.

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The death rate from asthma is on the increase. One in every ten children suffers from the illness.

this disregards the need to study varying doses). Even if each experiment took just one hour to complete and 100 laboratories worked round the clock seven days a week, testing all possible three-way combinations of 1,000 chemicals, it would still take over 180 years to complete!"

It should not come as too much of a surprise to learn therefore, that almost one American in two (figures in the UK are equally alarming) can expect to contract cancer at some point in his/her lifetime.³¹ Numerous modern illnesses can be linked with such chemical pollution.

The Failure of Modern Medicine

Perhaps most worrying of all is the emerging realisation that this century's 'miracle cures' and disease-eradication programmes have so often proven a failure. For example, despite the 'war against malaria' which began in the 1950s (and which itself, through massive use of DDT caused untold damage) "over the last decade, malaria has killed about ten times as many children as all wars combined have in that period".³²

Malaria is by no means the only vector-borne disease which is today spreading across the world. Until 1970, only nine countries had experienced epidemics of dengue haemorrhagic fever, a mosquito-borne disease for which there is no cure or vaccine and which causes the victim to bleed from the mouth, nose and gums. Since then, 29 more countries have experienced outbreaks. The WHO is now warning that these, and other vector-borne diseases, are likely to increase their range significantly as a result of global warming — itself a result of industrialisation.³³

According to the WorldWatch Institute,³⁴ "rates of infectious disease have risen rapidly in many countries during the past decade. Death from tuberculosis, malaria, dengue fever, and AIDS are up sharply; infectious diseases killed 16.5 million people in 1993, one third of all deaths worldwide... The resurgence of diseases once thought to have been conquered stems from a deadly mix of exploding populations, rampant poverty, inadequate health-care, misuse of antibiotics, and severe environmental

degradation."

Antibiotics, once thought to be the saviours of medicine and the guarantors of human health forever, are now in retreat, with resistance growing among many viruses and organisms, and old diseases resurfacing as a result. Tuberculosis, for example, has returned with a vengeance – it is largely resistant to all forms of antibiotics, and it killed more people at the beginning of the nineties than at any other point in history. The WHO³⁵ has estimated that the number of new cases of TB will rise to ten million by 2015. Rheumatic fever, a fearsome disease which killed or crippled thousands of American children annually during the first half of this century, is also on the rise. And in 1991,³⁶ Latin America experienced its first widespread outbreak of cholera for a century – the disease killed over 5,000 people in eighteen months.

"Modern technology allows the appearance of health but not the substance," according to Sally Fallon.³⁷ "The age of solutions has a health crisis it cannot solve."

Social Breakdown

Another piece of baggage which accompanies modernity is serious social unrest and emotional deterioration.

A new report, prepared by James House,³⁸ a sociologist at the Institute of Social Research at the University of Michigan, has concluded that "Social isolation is as significant to mortality rates as smoking, high blood-pressure, high cholesterol, obesity and lack of physical exercise." These findings are worrying to say the least, since of all the baggage which accompanies the process of globalisation, atomisation of society and the destruction of community are perhaps the most striking. The US National Institute of Mental Health³⁹ reports that suicide is the third leading cause of death among young people aged 15 to 24, and that "about 25 per cent of American hospital beds are filled by mental patients". It reported back in 1990 that 28 million American adults, over 18 years old, suffer some mental disorder during a given six-month period."

According to Dr Graham Ensle,⁴⁰ Professor of Psychiatry at the University of Texas South Western Medical Centre in Dallas, as many as one in ten children may suffer from severe depression and have suicidal feelings in the earliest years of their lives. According to Ian Goodyear,⁴¹ Professor of child and adolescent psychiatry at Cambridge University, "There is evidence that all psychiatric illness has gone up since the second world war – among children as much as adults." In the UK, mental illness has doubled in the past five years among children under ten years of age.⁴²

Jerry Mander⁴³ points out that by 1989 the national murder rate in the US had reached more than 30,000 per year: "If you are a young black man in America you are more likely to die by homicide than in any other way. If you are a woman you have one chance in five of being raped in your lifetime, and one chance in three that you suffer sexual molestation as a child. The US prison population, by 1990, had passed the one million mark... In 1990, over 3 million Americans were homeless." According to a recent story in the *New York Times*,⁴⁴ 70,000 elderly US citizens are yearly dumped in public toilets, train stations or on sidewalks by their own relatives – unwilling or unable to look after them.

The story in Britain is almost as alarming. In the 20 years between 1971 and 1991, the number of children allowed by their parents to walk themselves to school dropped from 80 per cent to just 9 per cent⁴⁵ – so dangerous are their streets. For the same reason, a child born today in Britain can expect to watch more than eleven *solid* years of television before dying.⁴⁶

Progress to What?

In short, proponents of 'progress' have little to boast of in the way of physical or social health. According to Sally Fallon,⁴⁷ "The twentieth century, it seems, will exit with a crescendo of disease." But while so-called 'progress' has utterly failed us, more or less across the board, there *are* a number of quite promising and growing trends. We have sought in this special issue of *The Ecologist* to highlight some of the more encouraging of these trends.□

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The March Of The Monoculture

Around the world, the pressure to conform to the expectations of the spreading, consumer monoculture is destroying cultural identity, eliminating local economies and erasing regional differences. As a consequence the global economy is leading to uncertainty, ethnic friction, and collapse, where previously there had been relative security and stability. **By Helena Norberg-Hodge**

For many, the rise of the global economy marks the final fulfilment of the great dream of a 'Global Village'. Almost everywhere you travel today you will find multi-lane highways, concrete cities and a cultural landscape featuring grey business suits, fast-food chains, Hollywood films and cellular phones. In the remotest corners of the planet, Barbie, Madonna and the Marlboro Man are familiar icons. From Cleveland to Cairo to Caracas, Baywatch is entertainment and CNN news.

The world, we are told, is being united by virtue of the fact that everyone will soon be able to indulge their innate human desire for a Westernised, urbanised consumer lifestyle. West is best, and joining the bandwagon brings closer a harmonious union of peaceable, rational, democratic consumers 'like us'.

This world-view assumes that it was the chaotic diversity of cultures, values and beliefs that lay behind the chaos and conflicts of the past: that as these differences are removed, so the differences between us will be resolved.

Corporate and government executives no longer consciously plan the destruction they wreak – indeed they are often unaware of the consequences of their decisions on real people on the other side of the world.

As a result, all around the world, villages, rural communities and their cultural traditions, are being destroyed on an unprecedented scale by the impact of globalising market forces. Communities that have sustained themselves for hundreds of years are simply disintegrating. The spread of the consumer culture seems virtually unstoppable.

Consumers R Us: The Development of the Global Monoculture

Historically, the erosion of cultural integrity was a conscious goal of colonial developers. As applied anthropologist Goodenough explained:

"The problem is one of creating in another a sufficient dissatisfaction with his present condition of self so that he wants to



change it. This calls for some kind of experience that leads him to reappraise his self-image and re-evaluate his self-esteem."¹ Towards this end, colonial officers were advised that they should:

- 1: Involve traditional leaders in their programmes.
- 2: Work through bilingual, acculturated individuals who have some knowledge of both the dominant and the target culture.
- 3: Modify circumstances or deliberately tamper with the equilibrium of the traditional culture so that change will become imperative.
- 4: Attempt to change underlying core values before attacking superficial customs."²

It is instructive to consider the actual effect of these strategies on the well-being of individual peoples in the South. For example, the Toradja tribes of the Poso district in central Celebes (now Sulawesi, Indonesia) were initially deemed completely incapable of 'development' without drastic intervention. Writing in 1929,

A.C. Kruyt reported that the happiness and stability of Toradja society was such that "development and progress were impossible" and that they were "bound to remain at the same level".³

Toradja society was cashless and there was neither a desire for money nor the extra goods that might be purchased with it. In the face of such contentment, mission work proved an abject failure as the Toradjas had no interest in converting to a new religion, sending their children to school or growing cash crops. So, in 1905 the Dutch East Indies government decided to bring the Poso region under firm control, using armed force to crush all resistance. As a result of relocation and continual government harassment, mortality rates soared among the Toradjas. Turning to the missionaries for help, they were "converted" and began sending their children to school. Eventually they began cultivating coconut and coffee plantations and began to acquire new needs for oil lamps, sewing machines, and 'better' clothes. The self-sufficient tribal economy had been superseded, as a result of deliberate government action.

Already now, seven-year-old girls in Singapore are suffering from eating disorders, and it is not unusual to find East Asian women with eyes surgically altered to look more European.

In many countries, schooling was the prime coercive instrument for changing "underlying core values" and proved to be a highly effective means of destroying self-esteem, fostering new 'needs', creating dissatisfactions, and generally disrupting traditional cultures. An excerpt from a French reader designed in 1919 for use by French West African school-children gives a flavour of the kinds of pressure that were imposed on children:

"It is... an advantage for a native to work for a white man, because the Whites are better educated, more advanced in civilisation than the natives... You who are intelligent and industrious, my children, always help the Whites in their task. That is a duty."

The Situation Today: Cultural Erosion

Today, as wealth is transferred away from nation states into the rootless casino of the money markets, the destruction of cultural integrity is far subtler than before. Corporate and government executives no longer consciously plan the destruction they wreak – indeed they are often unaware of the consequences of their decisions on real people on the other side of the world. This lack of awareness is fostered by the cult of specialisation and speed that pervades our society – the job of a public relations executive is confined to producing business-friendly soundbites – time pressures and a narrow focus prevent a questioning of the overall impact of corporate activity. The tendency to undermine cultural diversity proceeds, as it were, on 'automatic pilot' as an inevitable consequence of the spreading global economy.

But although the methods employed by the masters of the 'Global Village', are less brutal than in colonial times, the scale and effects are often even more devastating. The computer and telecommunications revolutions have helped to speed up and strengthen the forces behind the march of a global monoculture, which is now able to disrupt traditional cultures with a shocking speed and finality which surpasses anything the world has witnessed before.

Preying on the Young

Today, the Western consumer conformity is descending on the less industrialised parts of the world like an avalanche. 'Development' brings tourism, Western films and products and, more recently, satellite television to the remotest corners of the Earth. All provide overwhelming images of luxury and power. Adverts and action films give the impression that everyone in the West is rich, beautiful and brave, and leads a life filled with excitement and glamour.

In the commercial mass culture which fuels this illusion, advertisers make it clear that Westernised fashion accessories equal sophistication and 'cool'. In diverse 'developing' nations around the world, people are induced to meet their needs not through their community or local economy, but by trying to 'buy in' to the global market. People are made to believe that, in the words of one US advertising executive in China, "imported equals good, local equals crap".

Even more alarmingly, people end up rejecting their own ethnic and racial characteristics – to feel shame at being who they are. Around the world, blonde-haired blue-eyed Barbie dolls and thin-as-a-rake 'cover girls' set the standard for women. Already now, seven-year-old girls in Singapore are suffering from eating disorders. It is not unusual to find east Asian women with eyes surgically altered to look more European, dark-haired southern European women dying their hair blonde, and Africans with blue- or green-coloured contact lenses aimed at 'correcting' dark eyes.

The one-dimensional, fantasy view of modern life promoted by the Western media, television and business becomes a slap in the face for young people in the 'Third World'. Teenagers, in particular, come to feel stupid and ashamed of their traditions and their origins. The people they learn to admire and respect on television are all 'sophisticated' city dwellers with fast cars, designer clothes, spotlessly clean hands and shiny white teeth. Yet they find their parents asking them to choose a way of life that involves working in the fields and getting their hands dirty for little or no money, and certainly no glamour. It is hardly surprising, then, that many choose to abandon the old ways of their parents for the siren song of a Western material paradise.

For millions of young people in rural areas of the world, modern Western culture appears vastly superior to their own. They see incoming tourists spending as much as \$1,000 a day – the equivalent of a visitor to the US spending about \$50,000 a day. Besides promoting the illusion that all Westerners are multi-millionaires, tourism and media images also give the impression that we never work – since for many people in 'developing' countries, sitting at a desk or behind the wheel of a car does not constitute work.

People are not aware of the negative social or psychological

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"Right now you can buy our soft drinks in 166 countries. But from our perspective, nearly all these markets are vastly under-developed."

– PepsiCo, Annual Report



Selling Avon cosmetics in the Amazon.

STILL PICTURES

aspects of Western life so familiar to us: the stress, the loneliness and isolation, the fear of growing old alone, the rise in clinical depression and other 'industrial diseases' like cancer, stroke, diabetes and heart problems. Nor do they see the environmental decay, rising crime, poverty, homelessness and unemployment. While they know their own culture inside out, including all of its limitations and imperfections, they only see a glossy, exaggerated side of life in the West.

Ladakh: The Pressure to Consume

My own experience among the people of Ladakh or 'Little Tibet', in the trans-Himalayan region of Kashmir, is a clear, if painful, example of this destruction of traditional cultures by the faceless consumer monoculture. When I first arrived in the area 23 years ago, the vast majority of Ladakhis were self-supporting farmers, living in small scattered settlements in the high desert. Though natural resources were scarce and hard to obtain, the Ladakhis had a remarkably high standard of living – with beautiful art, architecture and jewellery. Life moved at a gentle pace and people enjoyed a degree of leisure unknown to most of us in the West. Most Ladakhis only really worked for four months of the year, and poverty, pollution and unemployment were alien concepts. In 1975, I remember being shown around the remote village of Hemis Shukpachan by a young Ladakhi called Tsewang. It seemed to me, a newcomer, that all the houses I saw were especially large and beautiful, and I asked Tsewang to show me the houses where the poor lived. He looked perplexed for a moment, then replied, "We don't have any poor people here."

In recent years external forces have caused massive and rapid disruption in Ladakh. Contact with the modern world has debilitated and demoralised a once-proud and self-sufficient people, who today are suffering from what can best be described as a cultural inferiority complex. When tourism descended on Ladakh some years ago, I began to realise how, looked at from a Ladakhi perspective, our modern, Western culture appears much more successful, fulfilled and sophisticated than we find it to be from the inside.

In traditional Ladakhi culture, virtually all basic needs – food, clothing and shelter, were provided without money. Labour was free of charge, part of an intricate and long-established web of human relationships. Because Ladakhis had no need for money, they had little or none. So when they saw outsiders – tourists and visitors – coming in, spending what was to them vast amounts of cash on inessential luxuries, they suddenly felt poor. Not realising that money was essential in the West – that without it, people often go homeless or even starve – they didn't realise its true value. They began to feel inadequate and backward. Eight years after Tsewang had told me that Ladakhis had no poverty, I overheard him talking to some tourists. "If you could only help us Ladakhis," he was saying, "we're so poor."

Tourism is part of the overall development which the Indian government is promoting in Ladakh. The area is being integrated into the Indian, and hence the global, economy. Subsidised food is imported from the outside, while local farmers who had previously grown a variety of crops and kept a few animals to provide for themselves have been encouraged to grow cash crops. In this way they are becoming dependent on forces beyond their control – huge transportation networks, oil prices, and the fluctuations of international finance. Over the course of time, financial inflation obliges them to produce more and more, so as to secure the income that they now need in order to buy what they used to grow themselves. In political terms, each Ladakhi is now one individual in a national economy of 800 million, and, as part of a global economy, one of about six billion.

As a result of external investments, the local economy is crumbling. For generation after generation Ladakhis grew up learning how to provide themselves with clothing and shelter; how to make

"Once a peoples self confidence and pride is destroyed, then you don't need an external enemy like China to destroy other aspects of culture like language, dress and social values. The people who feel inferior work hard to destroy these things themselves."

– Sonam Wangchuk. Director of the Students Educational and Cultural Movement of Ladakh.

shoes out of yak skin and robes from the wool of sheep; how to build houses out of mud and stone. As these building traditions give way to 'modern' methods, the plentiful local materials are left unused, while competition for a narrow range of modern materials – concrete, steel and plastic – skyrockets. The same thing happens when people begin eating identical staple foods, wearing the same clothes and relying on the same finite energy sources. Making everyone dependent on the same resources creates efficiency for global corporations, but it also creates an artificial scarcity for consumers, which heightens competitive pressures.

As they lose the sense of security and identity that springs from deep, long-lasting connections to people and place, the Ladakhis are starting to develop doubts about who they are. The images they get from outside tell them to be different, to own more, to buy more and to thus be 'better' than they are. The previously strong, outgoing women of Ladakh have been replaced by a new generation – unsure of themselves and desperately concerned with their appearance. And as their desire to be 'modern' grows, Ladakhis are turning their backs on their traditional culture. I have seen Ladakhis wearing wristwatches they cannot read, and heard them apologising for the lack of electric lighting in their homes – electric lighting which, in 1975, when it first appeared, most villagers laughed at as an unnecessary gimmick. Even traditional foods are no longer a source of pride; now, when I'm a guest in a Ladakhi village, people apologise if they serve the traditional roasted barley, *ngamphé*, instead of instant noodles.

Ironically, then, modernisation – so often associated with the triumph of individualism – has produced a loss of individuality and a growing sense of personal insecurity. As people become self-conscious and insecure, they feel pressured to conform, and to live up to an idealised image. By contrast, in the traditional village, where everyone wore essentially the same clothes and looked the same to the casual observer, there was more freedom to relax. As part of a close-knit community, people felt secure enough to be themselves.

In Ladakh, as elsewhere, the breaking of local cultural, economic and political ties isolates people from their locality and from each other. At the same time, life speeds up and mobility increases – making even familiar relationships more superficial and brief. Competition for scarce jobs and political representation within the



Poster advertising the surgical 'correction' of eye colour, La Paz, Bolivia.



JOHN PAGE

Alarming, people are beginning to reject their own ethnic and racial characteristics – to feel shame at being who they are. Around the world, blonde-haired blue-eyed Barbie dolls and thin-as-a-rake 'cover girls' set the standard for women.

new centralised structures increasingly divides people. Ethnic and religious differences began to take on a political dimension, causing bitterness and enmity on a scale hitherto unknown. With a desperate irony, the monoculture – instead of bringing people together, creates divisions that previously did not exist.

As the fabric of local interdependence fragments, so do traditional levels of tolerance and co-operation. In villages near the capital, Leh, disputes and acrimony within previously close-knit communities, and even within families, are increasing. I have even seen heated arguments over the allocation of irrigation water, a procedure that had previously been managed smoothly within a co-operative framework. The rise in this kind of new rivalry is one of the most painful divisions that I have seen in Ladakh. Within a few years, growing competition has actually culminated in violence – and this in a place where, previously, there had been no group conflict in living memory.

Deadly Divisions

The rise of divisions, violence and civil disorder around the world are the consequence of attempts to incorporate diverse cultures and peoples into the global monoculture (see also 'The Two Fascisms' by Vandana Shiva in this issue). These divisions often deepen enough to result in fundamentalist reaction and ethnic conflict. Ladakh is by no means an isolated example.

In Bhutan, where different ethnic groups had also lived peacefully together for hundreds of years, two decades of economic development have resulted in the widespread destruction of decentralised livelihoods and communities – unemployment, once completely unknown, has reached crisis levels. Just like in Ladakh, these pressures have created intense competition between individuals and groups for places in schools, for jobs, for resources. As a result, tensions between Buddhists and Bhutanese Hindus of Nepalese origin have led to an eruption of violence and even a type of 'ethnic cleansing'.

Elsewhere, Nicholas Hildyard has written of how, when confronted with the horrors of ethnic cleansing in Yugoslavia or Rwanda, it is often taken for granted that the cause must lie in ingrained and ancient antagonisms. The reality, however, as Hildyard notes, is different:

"Scratch below the surface of inter-ethnic civil conflict, and the shallowness and deceptiveness of 'blood' or 'culture' explanations are soon revealed. 'Tribal hatred' (though a real and genuine emotion for some) emerges as the product not of 'nature' or of a primordial 'culture', but of a complex web of politics, economics, history, psychology and a struggle for identity."

In a similar vein, Michel Chossudovsky, Professor of Econom-

ics at the University of Ottawa, argues that the current Kosovo crisis has its roots at least partly in the macro-economic reforms imposed by Belgrade's external creditors such as the International Monetary Fund (IMF). Multi-ethnic Yugoslavia was a regional industrial power with relative economic success. But after a decade of Western economic ministrations and five years of disintegration, war, boycott, and embargo, the economies of the former Yugoslavia are in ruins. Chossudovsky writes:

"In Kosovo, the economic reforms were conducive to the concurrent impoverishment of both the Albanian and Serbian populations contributing to fuelling ethnic tensions. The deliberate manipulation of market forces destroyed economic activity and people's livelihood creating a situation of despair."

It is sometimes assumed that ethnic and religious strife is increasing because modern democracy liberates people, allowing old, previously suppressed, prejudices and hatreds to be expressed. If there was peace earlier, it is thought it was the result of oppression. But after more than twenty years of first-hand experience on the Indian subcontinent, I am convinced that economic 'development' not only exacerbates existing tensions but in many cases actually *creates* them. It breaks down human-scale structures, it destroys bonds of reciprocity and mutual dependence, while encouraging people to substitute their own culture and values with those of the media. In effect this means rejecting one's own identity – rejecting one's self.

The global monoculture is a dealer in illusions – while it destroys traditions, local economies and sustainable ways of living, it can never provide the majority with the glittering, wealthy lifestyle it promises them.

Ultimately, while the myth makers of the 'Global Village' celebrate values of togetherness, the disparity in wealth between the world's upper income brackets and the 90 per cent of people in the poor countries represents a polarisation far more extreme than existed in the 19th century. Use of the word 'village' – intended to suggest relative equality, belonging and harmony – obscures a reality of high-tech islands of privilege and wealth towering above oceans of impoverished humanity struggling to survive. The global monoculture is a dealer in illusions – while it destroys traditions, local economies and sustainable ways of living, it can never provide the majority with the glittering, wealthy lifestyle it promised them. For what it destroys, it provides no replacement but a fractured, isolated, competitive and unhappy society. □

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"The North American Free Trade Agreement and other regional trade pacts, together with the General Agreement on Tariffs and Trade awaiting US approval, should give us additional opportunities for profitable geographic expansion."

– Philip Morris, *Annual Report 1993*

The Two Fascisms

Globalisation can best be described as economic totalitarianism – a totalitarianism that is leading to another frightening extreme in the form of fundamentalism. **By Dr Vandana Shiva.**

Globalisation and Fundamentalism

Fundamentalism and fascism have always emerged when societies are pushed into deep insecurity by outside forces – most commonly those of imperialism and economic globalisation. These were the forces that fuelled the rise of Nazism in Germany in the 1930s, and they were the forces that created communalisation in the Indian subcontinent 60 years ago, as a result of the British colonial policy of 'divide and rule'. Today, these forces are creating deep-seated insecurities and resentments across the world, as traditional cultures, value systems and even elected governments crumble before the onslaught of rapid technological change, the Americanisation of culture and the spread of the corporate monoculture.

Fundamentalism is once again on the rise around the world. In India, the pulling down of the Babri mosque, the recent attacks on churches in Gujarat, the digging up of the cricket pitch where the Indo-Pakistan match was to take place, and the burning of cinema halls where the film 'Fire' was being screened by extremist elements of society – all these recent events bear witness to the transformation of India from a tolerant, inclusive and diverse society into a society burdened with cultural, religious and caste conflict. Globalisation has to shoulder much of the blame for this.

It is not an accident that the rise of fundamentalism coincides with the intensification of the forces of globalisation. In my book, *The Violence of the Green Revolution*, written in 1985, I attempt-

Below: Herr Busse, President of the right-wing extremist party, marching in memory of Hess Fulda. Below right: Taliban fighters in Afghanistan

ed to show how the Green Revolution resulted not just in a non-sustainable agriculture, but also in the rise of violent Sikh nationalism, as unemployed and angry youths took up the guns exported by the same powers that had destroyed Indian agriculture, and who looked on India as a market for their overpriced, non-essential, often hazardous products and technologies. Later, in the 1994 Bertrand Russell Peace Lectures, I tried to show how the economic project of globalisation, which centralises power, destroys livelihoods and creates displacement and environmental destruction, also sows the seeds of communal politics and religious fundamentalism.

How one Fascism Breeds the Other

Globalisation fuels fundamentalism at many levels:

- Fundamentalism is often a cultural backlash to globalisation – alienated and angry young men of colonised societies and cultures react to the erosion of their identity and security.
- Dispossessed people, robbed of economic security by globalisation, cling to politicised religious identities and narrow nationalism for security.
- Politicians robbed of economic decision-making as national economic sovereignty is eroded by globalisation organise their vote-banks along lines of religious and cultural difference, entrenching the politics of fear and hatred.
- Imperialist forces, using the divide and rule strategy, also exploit religious conflicts to fuel the opposition to globalisation. In

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India, for example, each time patent laws have been debated, and collective citizen response is emerging, communal conflicts suddenly mysteriously emerge and divert national energy from combating globalisation. This has been a systematic pattern since globalisation policies were implemented in 1991.

In India today, there is a rise in various kinds of religious fundamentalism – Christian, Muslim, Sikh and Hindu. It was Hindu fundamentalism as a political force that allowed the B.J.P. to emerge as the largest party in the last parliamentary elections. The resulting coalition Government included the B.J.P, the Akali Dal (the Sikh Party) the Samata Party (a socialist party) and independent MPs like Maneka Gandhi.

The B.J.P. lost the assembly elections in November 1998 in three States, largely as a result of the globalisation policies it fol-

Globalisation is generating social, economic and ecological insecurity on a global scale.

It is undermining citizen freedoms, and is creating artificial divisions among its natural opponents who need unity now more than ever.

lowed (despite promises to the contrary) which led to a rise in food prices and shortages of basic food items. These elections were dubbed the 'onion elections', because the shortage and vast expense of this staple food item was a major issue. The Congress Party won in three States using the high prices of onions as an election symbol.

The erosion of the political base of the B.J.P due to the economic policies of globalisation is leading to a renewed emergence of extremist 'Hindutva' as a political engine for votes. Hindutva and Hinduism are *not* the same thing. I for one have deep respect for the diverse faiths and beliefs that constitute Hinduism. Hinduism's strength has always been in its pluralistic nature, its tolerance and respect for other religions and its freedom to worship different gods and goddesses, or none at all. The Hindutva ideology, on the other hand, is a reactionary political force based on hatred, not love, promoting exclusion rather than inclusion and

dividing our diverse society instead of uniting it to fight the real threats posed by globalisation.

Both globalisation and fundamentalism require us to unite, urgently, and fight back against these forces. For Indians, this means fighting the WTO and World Bank policies of 'free' trade, and the establishment of the rule of TNCs such as Monsanto and Cargill, while also opposing the forces of Hindutva fundamentalism. For women, it means fighting both religious and capitalist patriarchy. There is undoubtedly a battle ahead, but it is vital that that battle is fought peacefully.

The Dangers of Division

For me, non-violence means that we live ecologically and at peace with all species. In India, the Earth community has never been seen to be dominated by humans. All species are part of 'Vasudhaiva Kutumbhakam', the Earth family. Leaving space for others is a measure of non-violence, and this ecological prescription also holds for politics. Genuine non-violence and democracy calls for pluralistic coalitions and multiple responses, rather than monopolisation and manipulation of movements. The horizon for activism is very wide – but spaces for meaningful sustained action are shrinking, and the handful of us working on issues of globalisation from an anti-fascist standpoint are being bombarded with false propaganda launched by supporters of both globalisation and religious extremism.

So far, this false propaganda has included the mobilisation of Indian scientists in support of Monsanto, and accusations by those highly questionable scientists that environmentalists are part of the 'pesticide lobby'. It includes accusations that those opposed to globalisation and unaccountable corporate power are somehow members of the ultra-right.

The real beneficiaries of these lies are of course the transnational corporations and the forces of globalisation. It is clearly in their interests that our energy is diverted away from fighting the economic roots of extremism and fundamentalism, and that our fragile movements are embroiled in an artificial atmosphere of distrust, suspicion and conflict.□

Fighting Back with Peace

Globalisation is generating social, economic and ecological insecurity on a global scale. It is undermining citizen freedoms, and it is (often calculatedly) creating dangerous divisions amongst its natural opponents, who need unity now more than ever. What we need today is a new movement for freedom from corporate rule, and a new peace movement that responds to the epidemic spread of various kinds of fundamentalism. What we need today is trust, compassion, respect and love for each other. My article *Reversing Globalisation: What Gandhi Can Teach Us* (in this issue) suggests how Gandhi's peaceful resistance to British rule can provide a model for those of us today fighting the two emerging fascisms of the 21st century.

Vandana Shiva is the director of the Research Foundation for Science, Technology and Ecology, India.

CORPORATESPEAK

"The major driver of change for General Motors today is the same as for most companies: it is globalisation. Advance in technology and communications are making a 'small world' a reality, and the world will only get smaller and smaller in coming years. It's easier than ever for global companies to manufacture virtually any product in virtually any region.

– General Motors, Annual Report



PANOS PICTURES

Turning The Globalisation Tide

Around the world, people are beginning to see what globalisation really means. As they experience its effects on their jobs, their communities and the environment, they are saying "No!". Over the past five years resistance has been growing exponentially, and there is a chance that the global tide can be turned. **By Helena Norberg-Hodge.**

In attempting to resist economic globalisation and construct alternatives to it, we commit ourselves to a vast and intimidating task. But more and more people are doing just that. They realise that we cannot sit back and wait for the global economy to collapse, for our political leaders to suddenly change their minds or for some kind of revolutionary upheaval to turn things around. Instead they are joining campaigns that seek to educate the public about the underlying cause of the social and environmental crises while pressuring for a new economic architecture, new rules of the game for business. As awareness of the interconnected nature of our problems grows, so does a sense that we can change things. People feel empowered and motivated when they realise that reversing globalisation will solve a whole range of environmental, social and personal problems.

Resistance and Renewal

Turning the globalisation juggernaut around involves two separate but connected processes: resistance and renewal. **Renewal** comes from the ground up; it is a process of pulling power downwards from the international level to the national to the local. It is about rejuvenating local economies, repairing the local environment, reinvigorating small-scale businesses, and breathing life back into communities. Much of this work is already being done in both North and South, and much more will be needed if genuine, local-controlled alternatives to globalisation are to become a reality.

But this renewal *in itself* is not enough: **resistance** is also vital. While more economic barriers come down, while more power is centralised by unaccountable corporations, while treaties like the GATT and MAI continue to be proposed and ratified – while all this is happening, what we accomplish at the grassroots level will continually be undermined. In order to make local and national institutions fully viable and accountable we need to prevent a further usurpation of our democratic rights. We need to halt the accelerating globalisation of the economy in its tracks.

It is resistance, then, which is the most urgent task facing us. And 'resistance' means countering and challenging current notions of 'development' and progress through international information exchanges and public education campaigns. It means restricting corporations and resisting their entry into countries and communities; it means protecting our jobs, our communities and the natural world from the volatility of a runaway casino economy.

If the total corporate takeover of our lives is prevented and globalisation is reversed, space will be created in which regional and local solutions can begin to flourish. In other words, without a successful, global, resistance, aimed at reversing the process of economic centralisation, efforts at local renewal will constantly be undermined and jeopardised by corporate giants and their friends

in government. Renewal will be a long, slow, gradual process, and will necessarily involve everyone. Resistance, on the other hand, needs to be highly internationalised, fast, efficient and focussed. And it needs to be now.

The Globalisation of Resistance

All over the world, there are signs that this resistance is coalescing. Activists from the political left and right, from North and South, rich and poor, peaceful and militant, are beginning to work together to oppose globalisation. The results can be seen everywhere.

Last year, for example, the successful global campaign against the proposed Multilateral Agreement on Investment (MAI) succeeded in stalling the treaty just as it had begun to pick up speed (see box on page 204). Across the world there were street demonstrations and marches, office occupations, and other forms of resistance. In New Zealand, Maoris marched in protest at the threat to their traditions, and thousands of people took to the streets of Seoul, Korea, protesting against structural adjustment and globalisation. These Southern voices are alerting people to the way in which "development" and "aid" have, generally speaking, become part of a corporate attempt to spread the consumer culture into the most remote corners of the world (see *Counter-Development* overleaf).

In India, where action against the global economy is snowballing remarkably quickly, a 'Declaration of the Indian People Against the WTO' (which can be read on the Internet at www.agp.org/agp/en/PGAInfos/980516india.html) has recently been drawn up by a group of farmers, academics, NGOs, unions and others. It attacks the "WTO-IMF-World Bank trinity", which "has the potential not only to suck the sweat and blood of the masses of the two-thirds of the world, but has started destroying our natural habitats ... and our cultural diversity." Also in India, the ten million-strong Karnataka State Farmers Association (KRRS) has been involved in destroying Kentucky Fried Chicken outlets, occupying the offices of the giant seed company Cargill and, most recently, burning Monsanto's genetically modified crops, all in the wider context of protesting about the effects of globalisation on the subcontinent. The KRRS are organising an 'Intercontinental Caravan' of Indian farmers and others, which will be touring the world this year, raising awareness about the problems of globalisation.

Policy Steps to Reverse Globalisation

All these actions are signs that globalisation is increasingly being seen as a threat. As awareness grows, political leaders are being forced to question what they are doing. Already now both Bill

Clinton and Tony Blair are beginning to speak of the need to find a "Third Way" that is kinder and gentler... However, the thrust of the mega-merger, gambling casino economy continues unabated. In order to ensure that the economy turns in a kinder, gentler direction, continued pressure is needed – a pressure that demands swift political action, at national and international levels. Policy change along the following lines is urgently needed.

In the Short Term

Emergency-type multilateral treaties are needed that:

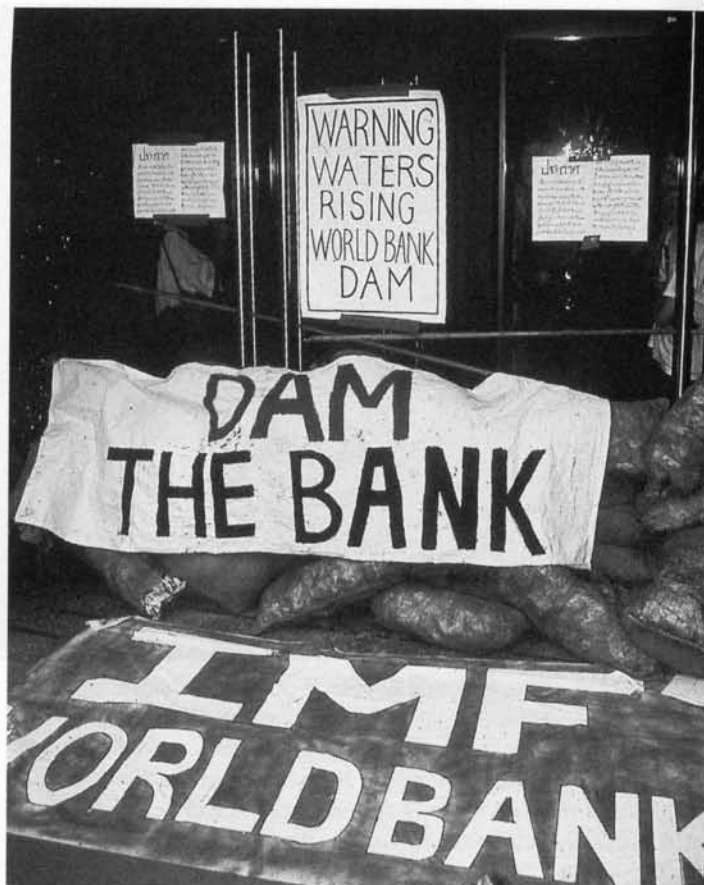
1. Slow down the over-heated economy by regulating investment and finance markets.
2. Immediately shift all public funds away from a continued expansion of fossil-based infrastructures in both North and South (see box in this article).
3. Regulate the production and trade in genetically-modified organisms.

In the Medium Term

Such steps can then lead to a further reform of the global economic architecture in the form of a new multilateral treaty on trade and investment. The purpose of this treaty would be to rewrite the rules laid down in the GATT, WTO, NAFTA, EU and proposed MAI. It would place limits on investment and corporate expansion, and reverse many of the recent iniquitous decisions on patent laws and the investment-before-all principle. It would reinforce efforts to reduce dependence on trade, and to achieve a better balance between local production for local needs and international trade.

In the Long Term

Once the above measures have helped to slow down the volatile and over-heated global economy, a broad, new multilateral treaty with teeth could be negotiated – a global human rights and environmental protection charter. This would be an agreement to operate local, regional and national economies under an umbrella that protects environment and society. It would place survival above corporate profit – i.e. the protection of the climate, biological and cultural diversity, food security, human rights and health would be



Demonstration outside the ODA Office against the IMF and World Bank building the Narmada Dam in India.

at the top of the agenda. It would, for example, prohibit the production of toxins and pollutants that travel across borders. It would not however involve setting up a global bureaucracy that would dictate, plan or implement local, national or regional economies. It would acknowledge the need for each nation to 'develop' in its own way and at its own pace. Some of the policy changes and regulatory reforms that would need to be incorporated in such an accord are sketched out later in this piece.

Counter-Development

Because of the tremendous psychological and structural pressures on the so-called 'developing' world, international information exchange or 'counter-development,' is more and more urgently required. People from more industrialised parts of the world can help provide information to the less industrialised parts of the world. Whether it be the impact on nuclear power, the use of the car or the use of industrial chemicals, the experience in the West needs to be highlighted and communicated.

When one travels around the so-called South today, one can find people happily handling toxic chemicals of all kinds, using DDT containers for salt shakers, even sprinkling pesticides and fungicides directly onto grain and vegetables without being aware of the hazards. Very often the instructions on the packets have not been read, and even when they have, because there is so little experience and such a short history of the use of the chemical, people are

unaware of their consequences. This lack of information is not to be confused with a lack of intelligence. In many communities, people have known which plants are toxic because that knowledge has been handed down from generation to generation. They have never experienced friendly, smiling individuals, encouraging them to make use of materials that in the long run turn out to be hazardous.

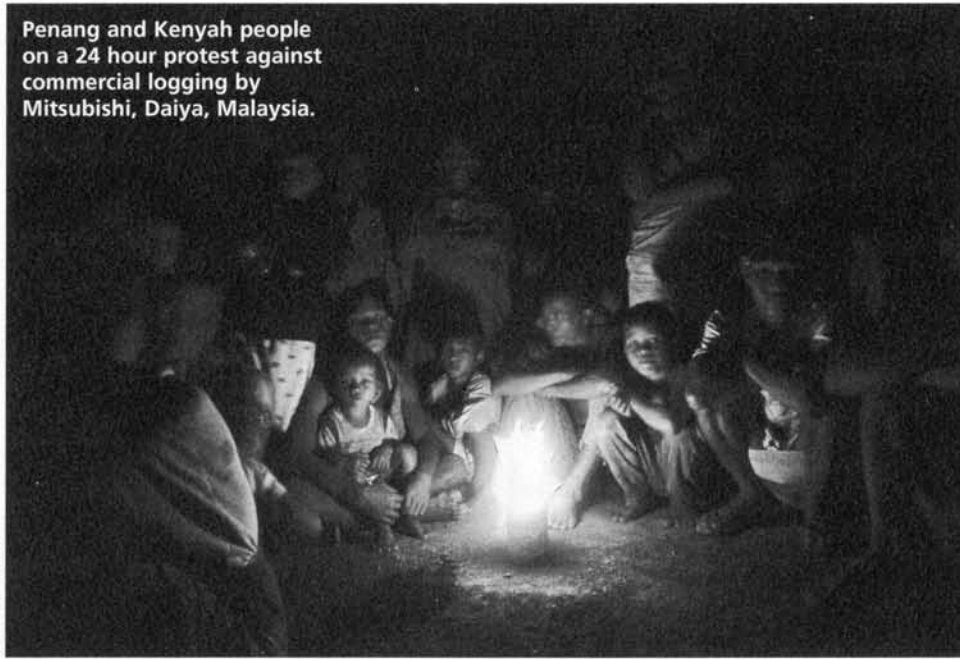
There has also been a major push to convince rural communities to make use of genetically manipulated seeds, and more and more corporations are trying to forge friendly alliances with 'native peoples' by offering them large sums for their natural resources. In all of these activities, information exchange between activists in both North and South is vitally needed. This process is often hampered by the sense among Northerners that "if I am living this Western lifestyle, how can I possibly tell them not to?" So the very same activist

who may be lobbying against the use of the car in their own community are reluctant to bring information to the South for the fear of seeming 'imperialist'. The sharing of information is not a question of *telling* the people of the South how to live – it is a question of *giving* them access to information, so that they themselves can make choices.

It is interesting to note that many of the individuals in the South who have become environmental leaders, or concerned with protecting their own cultures, have spent long periods in the North. When people from villages of the South visit homeless shelters, old people's homes and mental hospitals, and meet with campaigners here concerned with alleviating both environmental problems and poverty, they gain very convincing evidence that the Western development model is unsustainable – culturally, psychologically and environmentally. – *Helena Norberg-Hodge.*

Penang and Kenyah people
on a 24 hour protest against
commercial logging by
Mitsubishi, Daiya, Malaysia.

STILL PICTURES



All of the above can only happen if public awareness and resistance grows. Grassroot activists should campaign for new political representatives who are willing to get back around the same table where governments signed away many of the rights of their people and their own national businesses – and negotiate a new treaty. Cracks in the armour are already beginning to appear even at the highest levels of the establishment: people like Alan Greenspan and George Soros – global players who are intimately aware of the volatility and instability of the global economy – are starting to call for measures to control, albeit in a very limited way, the flow of finance capital and investment.

Currently economic blocks make it difficult for any single country acting alone to secede from the global economy and survive: the system is so powerful that going it alone is not a likely option for most states. On the other hand, a group of enlightened, far-sighted governments forming economic alliances *could* stand up to the power of the TNCs, and effectively buck the global market.

Such a collaboration would be very different from the models of co-operation that exist today. Its purpose would be to build enough strength to resist the power of global finance markets and corporations, and to establish measures to protect small and medium-sized enterprises within their own countries, and protect their natural resource base. Currently, the European Union consists of a vast economic bloc built up to compete with the US. A new European treaty, under the model suggested above, could seek to protect the integrity of the continent's diverse cultures, political systems and environments – in other words, to protect and nourish human and ecological needs as opposed to the needs of big business.

Economic Literacy

Though opposition to globalisation is growing, it is still the case that the majority of people fail to identify it as the underlying cause of many of their problems. Instead there is a tendency to blame the problems people face – whether they be unemployment, rising crime, deteriorating environments or the breakdown of community – on individual politicians, political parties or visible, near-at-hand 'enemies'. This tragically lies behind much of the growing fundamentalism and racism today.

It is difficult to see that transnational banks and corporations are pulling the strings behind the scenes, not surprisingly since neither our education nor the media give us access to this information. The current tragedy in Yugoslavia is one example of this – the many journalists covering the war have given little or no attention to the economic roots of the conflict (see my article

'March of the Global Monoculture,' in this issue.)

What is needed is a mass 'economic literacy' campaign – to reach as many people as possible. It is difficult to convince people to concern themselves with global trade treaties. It is therefore important to think carefully about how to frame the message so that people have a sense that this is an issue they can understand, and can do something about. Our task is made easier by the fact that the impact of the global economy is essentially the same wherever you are in the world. It merely manifests itself in different ways, according to the local context. So the analysis of what is happening in remote villages in India and to cities in Britain or Japan is virtually identical. But wherever you are, the message is urgently needed and has to be disseminated as widely and quickly as possible.

Steps Towards a Local Future

Below are some of what I believe are the key changes needed to bring the economy back to the people.

• Remove Hidden Subsidies and Investments

As Steven Gorelick clearly shows in his article in this issue, the global 'free' market is anything but free. Money spent by governments on infrastructure improvements, large-scale energy installations, subsidies to vast chemical farms, incentives for corporations to relocate to their soil and, particularly in the South, a well-armed military to quell any protests, is a deliberate rigging of the market in favour of large, global institutions.

These subsidies and investments need to be redirected to help small, local businesses and concerns. For example, the European Union, is planning to spend E120 billion Euros to add an additional 7,500 miles of superhighways to Western Europe by 2002, and is considering a tunnel to connect Europe with Africa. These roads are being built primarily for the transport of goods back and forth, to the advantage of large corporations. But if the vast container lorries which will transport these goods had to pay a road tax proportionate to what the average citizen pays for their car, the sums would be astronomical, and would force up the price of imported goods, to nearer what the genuine cost of producing them actually is. In doing so, they would make local alternatives much more attractive.

• Cancel International Debts

It is vital that the debt relief currently being pushed by many NGOs and even some governments truly benefits the poor and does not contribute to a further oiling of the machinery of globalisation. At present, the conditions which Northern governments will attach to debt relief are likely to be very similar to structural adjustment conditions imposed on the South by the IMF. Debt relief, instead, needs to be linked to a reorientation of development policy towards decentralisation and the strengthening of local economies.

• Shift Taxation Policy

Taxes should be shifted *towards* energy and resource taxation and away from taxes on income, capital and value added to goods. In almost every country in the world, taxes discriminate against small businesses. Small-scale production is usually more labour-intensive, and heavy taxes are levied on labour through income

Continued on page 208

The Heads of the Hydra

by Paul Kingsnorth

The globalisation of resistance is a new phenomenon. Only in the last few years have campaigners around the world joined up to resist the globalisation of the economy. Yet for decades before that, people all over the world were opposing environmental, social and economic destruction – destruction which, though not always obvious, was often the result of globalisation.

Though most of the world's politicians, industrialists and 'opinion-formers' don't seem to have noticed yet, what is likely to be the key struggle of the early 21st century has already begun. In time, the 1990s may come to be seen as the defining decade in the formation of this struggle – the time when the first stirrings of co-ordinated, worldwide resistance to the global economy began.

But it is only relatively recently, perhaps only in the last five or ten years, that activists around the world have begun to put their local struggles – against environmental damage, social decay, the destruction of local economies and cultures, the exploitation of labour and so forth – into a global context. Only in the 1990s has resistance, like capital itself, begun to become truly globalised.

But while this globalisation of resistance – characterised by struggles such as last year's anti-MAI campaign, and the forthcoming June 18th events – is a recent phenomenon, people around the world have long been campaigning against destructive projects which, though it may not always have been obvious, were themselves linked to globalisation. Road schemes, new power plants, giant dams,

deforestation, privatisation, expropriation of land – these are among the many individual threads in the global economic web. Campaigners against them have been, in effect, trying to slice off some of the many heads of the Hydra; it is only now that they are beginning to join together to aim their swords at its heart.

The Infrastructure of the Global Economy

As we have already seen, a global economy needs a global infrastructure to support it. It needs roads, railways, ports and airports to move increasing volumes of goods across borders. It needs power stations, dams, mines and pylons to provide fuel for the cities in which most consumers live, and the warehouses and offices of corporations. It needs quarries, landfill sites, factories, industrial estates, oil rigs, vast areas of chemical cropland and all the other components of a truly global economy. And as the market increases, as the number of consumers expands, it needs more of these things all the time.

But their construction and expansion invariably leads to environmental destruction and social dislocation, and protests against infrastructure development have been some of the most significant and popular of recent years. The 1990s saw the birth of a massive road protest movement in Europe, where the expansion of the 'Trans-European Road Network' (TERN) has led to massive environmental damage. The most widespread and successful European anti-roads movement was in Britain, where hundreds of treehouses, tunnels and protest camps succeeded in derailing the government's £22 billion road construc-

tion programme in just five years. Destructive roads have also been fought against in the 'Third World' – the Trans-Amazonian highway in Brazil, and other large schemes in Venezuela, Indonesia and elsewhere have been blockaded by thousands of indigenous people, protesting against the destruction of their forests and their traditional lands.

Extractive industries, particularly mining and oil-drilling, have also been foci of resistance. The world's longest-running campaign against a single corporation – the campaign against RTZ mining, led by 'PaRTiZans', has united indigenous people and environmental campaigners against the massive forest destruction, dislocation and pollution caused by mining and quarrying in Australia, Indonesia, South America and across Europe. Anti-Shell campaigns have sprung up across the world, and that corporation's dubious alliance with the military regime in Nigeria, and the destruction of the lands of the Ogoni and Ijaw peoples, has been linked with the attempt by oil companies to expand drilling into Antarctica, the only continent left mostly untouched by industrial destruction. And in Venezuela, as you read this, thousands of Indians are blockading roads in the Imataca forest reserve, to try to prevent the construction of an electrical grid that will help power the gold mines destroying their forests.

The construction of large dams in the Third World, often funded by the World Bank or Western governments, has combined environmental damage with the dislocation of thousands of people, and anti-dam battles have been some of the most bitterly fought in the world. India's Narmada dam alone was set to force over 30,000 villagers from their homes, and thousands of local people, often led by groups of women villagers, have staged sit-ins, festivals and protests against the government's plans for years.

The Battle for the Land

Linked with the expansion of the economic infrastructure is the issue of ownership and control of the land itself. From the deforestation of the Amazon to the construction of dams in India, from the transmigration programme in Indonesia to the expansion of industrial farming in Europe, land is increasingly being expropriated for large-scale projects that power the onward movement of the global market. Some of the fiercest battles across the Third World in recent decades have been over the issue of land ownership. The Amazon rubber-tappers' battles against deforestation and the expansion of plantations; the Maori inde-



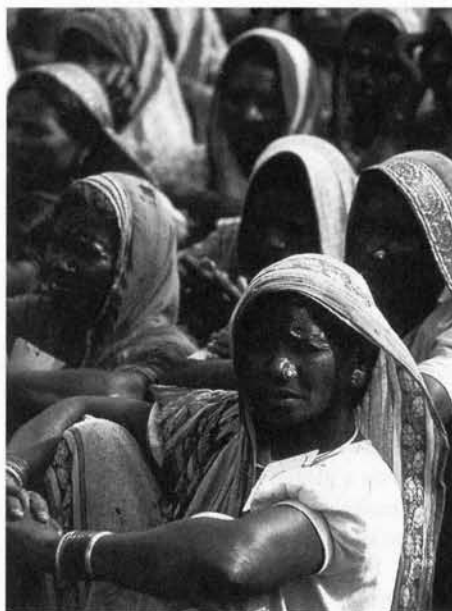
Protestors clash with security in an attempt to occupy road construction machinery at Twyford Down.

pendence movement in New Zealand and the aboriginal rights campaigns in Australia; the Kalahari bush-people and the Masai of Africa, fighting to retain their land rights in the face of mass tourism; tribal peoples in Borneo and West Papua, resisting the Indonesian government's transmigration schemes – all these, and many more such movements are focussed on securing land rights for local and traditional peoples.

Throughout the 1990s, awareness of land rights issues has grown across the world, and even in 'developed' countries, movements like the UK's 'The Land Is Ours' are working to persuade people that control of, and access to, land is a key component of any alternative economic system. In Brazil, what Noam Chomsky has called "the world's most important social movement" – the *Movimento Sem Terra* (MST) – has been responsible for occupying vast tracts of unused land, and resettling over 140,000 dispossessed peasant families on small-scale, co-operative farming communities since the beginning of the 1990s. They organise nationwide campaigns of direct action against industrial farming, labour casualisation and dispossession, and have a growing base of support amongst Brazil's vast underclass of landless people. *The Economist* magazine, the parish newsletter for followers of the Church of Global Capitalism, has said that, aside from currency fluctuations, the MST is the only force with the power to derail Brazil's globalisation train.

The Deepening of Environmental Activism

The growing environmental destruction perpetrated in the name of globalisation has produced a rise in direct action aimed at protecting what remains of wilderness areas and important habitats. The emergence of 'Earth First!' and the more radical 'Earth Liberation Front' (ELF) firstly in the USA and then in Europe, was a response to the invasion of wilderness areas by loggers, miners, roadbuilders and



Women protesting against the building of the Narmada Dam which would lead to the forced eviction of more than 30,000 villagers.

industry in general, and the direct-action tactics they pioneered were soon taken up in protests against environmental destruction all over the world. Today, direct action to protect wilderness and countryside areas for their own sake – rather than for their potential usefulness to humanity – has become commonplace in many countries. Often linked closely with issues of land rights and dispossession, environmental direct action campaigns have been seen in Canada's temperate rainforests (where the successful campaign to protect Clayoquot Sound has served as a model for many others), in Colombian Indian villages, on logging roads in Sarawak, on proposed port sites in India and in woodlands threatened by golf courses or holiday villages in Europe. There have been, and will be, many more of them.

Social and Labour Movements

Globalisation is also responsible for eroding legal protection for workers, destroying small businesses and leaving millions

unemployed. Any nation or corporation that tries, today, to maintain decent employee protection regulations or environmental standards is likely to be driven out of business by those competitors who have fewer scruples about using child labour or spewing their toxic by-products into the nearest river. This 'race-to-the-bottom' is one of the key features of the opening-up of markets, and its consequences are leading to a resurgence in labour and social movements.

Across Europe and North America, in the last few years, there have been widespread demonstrations by farmers, postal workers, dockers, miners, truckers, train drivers and many others, all protesting about casualisation, unemployment and growing job insecurity. And elsewhere, alliances of labour and social movements have achieved remarkable results.

In Indonesia last year, for example, an alliance of students, workers, farmers and others succeeded in bringing down the dictator Suharto after thirty years of rule. The 'Peasant Movement of the Philippines' has organised marches, rallies and a national caravan to protest against the opening-up of the country's forests, fields and villages to foreign mining and logging companies, and the country's 'New Peoples' Army' is continuing its armed struggle against globalisation, and the unemployment and homelessness it brings with it. And in India, campaigns against 'biopiracy' by Western scientists, and against Monsanto and other producers of GM crops, are inspired by the need to protect India's peasant farmers from being steamrollered by the global economy.

This brief summary of some of the better-known campaigns against the effects of globalisation gives some idea of how far-reaching resistance already is. As awareness of the globalisation project and its effects becomes more widespread, it is likely that more and more of these diverse movements will begin to unite and turn their fire on their mutual enemy – the global market.

Opposing MAlgalomania

by Olivier Hoedeman

With the halt of the MAI negotiations in the OECD, citizens' groups can celebrate their first major international victory against a treaty that was an essential element in the political project of economic globalisation. The struggle against the neoliberal agenda behind the MAI is, however, far from won, as the push for MAI-style rules continues within other international economic fora, such as the WTO. But if citizens' groups manage to

steer clear of the co-option strategies of governments and international organisations, the victory over the MAI might be a real turning point.

The MAI, negotiated exclusively between the 29 richest industrialised countries in the OECD, aimed for no less than the full deregulation of foreign investment flows on a global scale. It would have bound signatory countries for 20 years to a regime in which transnational corporations (TNCs) would have unrestricted access to any sector of the economy, enjoy at least

the equivalent treatment granted to a local company and have the right to claim these new privileges at an international dispute settlement tribunal. It would have posed a serious threat to environmental and consumer legislation and further accelerated the dominance of large transnational corporations at the expense of local economies.

Until the spring of 1997, when North American citizens' groups published a leaked draft version of the MAI on the Internet, negotiations proceeded relatively

harmoniously among an inner circle of neoliberal negotiators and corporate cheerleaders. But the leaked draft caused widespread indignation over the extreme bias of the treaty towards the interests of TNCs and the exclusiveness of the process. Out of this grew a broad, loose coalition of citizens' movements from all over the world which set out to stop the MAI.

Anti-MAI campaigns in Canada and the US soon grew into a serious political force. In the first months of 1998, campaigns against the MAI took off in European countries, and particularly in France the MAI became a major controversial political issue. At the OECD Ministerial in April 1998 the negotiations were suspended for a period of six months. After a so-called "period of assessment and consultation" to soften up the opposition, the OECD hoped to be able to resume and complete negotiations. But the response by the citizens' groups opposing the MAI was to intensify their campaign.

France was the only OECD country that used the six month period to carry out a fundamental assessment of the MAI. The

result was a report that condemned the anti-democratic nature of the negotiations, and confirmed the potentially disastrous social and environmental consequences of the proposed treaty. The French government approved the conclusions and withdrew from the negotiations. Soon afterwards, the UK, Canada and Australia also pulled out and negotiations collapsed.

Although commentators have emphasised the use of the internet by the anti-MAI campaigns, the strength of the loose international coalition came from its basis in national and local campaigns and its emphasis on uniting a broad range of citizens' movements. Strong organising at grassroots level resulted in numerous cities in North America and elsewhere officially declaring themselves MAI-free zones.

An invaluable asset was unity around a common message: rejecting the MAI and demanding a one-year moratorium on negotiations. Those groups and individuals who confronted the MAI were diverse, but unified in their rejection of the unprecedented powers that transnational corporations now wield in virtually every sector of

society. As a result, valuable work has taken place on developing alternatives to the deregulatory agenda underlying the MAI, for instance in Canada where a "Citizens' Search for Alternatives" took place, a string of local meetings during which citizens discussed ways to regain democratic control over the economy (<http://www.canadians.org>).

Of course, the battle is not over: the governments which supported the MAI continue to promote globalisation, and the EU has already started a new offensive for negotiations on MAI-like investment rules as part of the millennium round of negotiations in the WTO, seeking to win over the opposition by promising environmental clauses and greater transparency. Although these greenwashing tactics may convince some NGOs, campaigning against the Millennium Round is already on the rise.

Olivier Hoedeman, Corporate Europe Observatory (CEO). For more updates on the MAI and its clones, visit <http://www.xs4all.nl/~ceo>. For signing up to the statement opposing a new WTO round and other information on the campaign, contact Ronnie Hall of Friends of the Earth: ronnieh@foe.co.uk.

Genetically Modified Crops – Thinking Global, Acting Local

by The Editors

When the first shipments of Monsanto's genetically modified (GM) soya arrived in the UK late in 1996, public awareness of GM crops was virtually nil. Thirty months later everyone who follows the news is aware of the issue, and opinion polls show that the great majority of the public don't want genetically modified food. The opponents of this latest agricultural 'techno-fix' are to be found all over the country and come from all walks of life. Indeed, the campaign against GM crops provides an interesting example of people thinking globally, but acting locally.

Through the development of GM crops transnational 'life sciences' companies such as Monsanto, Novartis and Zeneca seek to increase hugely their control over the food production system, from plough to plate. GM crops represent a further stage in the standardisation of agriculture, a move away from plant varieties adapted to local conditions and towards still greater use of high-input monoculture systems, with all their attendant risks. The patenting of germplasm and the creation of vertically integrated agriculture groups (via mergers and strategic alliances) are other important elements of this drive for centralised control.

In the UK the public response has been



to call for agricultural systems which are the exact reverse of this model, in that they are localised, extensive and with low or no chemical inputs. Demand for organic food has gone through the roof, far outstripping domestic supply and encouraging record numbers of farmers to begin the process of organic conversion. At the same time vegetable box schemes, farmers' markets, and other forms of local food links are gaining in popularity. The 'cheap food' policies of the last few decades are being questioned, as consumers realise that "they are what they eat" and change their shopping habits

accordingly.

The UK opposition to GM crops developed throughout 1997, with 'supermarket actions' an important element at the outset. Typically a group of concerned consumers would go to a branch of their local supermarket, fill up trolleys with processed food and then take them to the checkout where they would question staff about products containing GM ingredients.

Public meetings and debates soon followed, often with several hundred people taking part. These in turn led to the setting up of groups opposed to GM food across

the country, from Scotland to the Southwest, from Wales to East Anglia. In November 1997 there were six local GM food campaign groups of this kind. Today there are nearly fifty, not to mention the hundreds of active local groups affiliated to organisations like Friends of the Earth, Greenpeace and the Women's Institute. Lobbying at a local level has led to Councils around the country banning GM food, and in February this year the Local Government Association recommended a five-year ban to the 500 local and regional authorities it advises.

Whilst work of this kind attracted local media attention, the national media picked up the issue when direct action campaigners began to target GM crop trials, with groups such as the Lincolnshire Loppers, the Kenilworth Croppers and the Wardens

of Wiltshire bursting on to the scene. Mutant vegetables, campaigners stripping off to reveal "the naked truth about genetics", and gnomes from the Human GeneGenome Projects have all been involved.

Some of these direct action campaigners have moved on to genetic resistance from other issues, but one of the striking aspects of the opposition to GM crops is the way in which members of the public with no previous campaigning experience have got involved. When leading organic farmer Guy Watson found that his Devon farm was threatened by a GM maize experiment he was amazed to find 600 people from the Totnes area marching to his farm to support him!

The level of grassroots opposition from Middle England, reflected by the treatment of GM crops in well known radio pro-

grammes such as "The Archers", gradually became apparent to the tabloid press and parliamentarians. This created the context for widespread media coverage in the first few months of this year, and for cross-party political support for groups opposed to genetically modified food. The campaign for a five year freeze on commercial growing, importing and patenting of GM crops is now supported by 56 different organisations, including Third World development agencies, retailers, church groups, agricultural research centres, consumer organisations and, of course, environmental NGOs.

Indeed it is hard to think of many political issues in recent years that have generated such broad opposition, or revealed a government so out of touch with the wishes of its electorate.

Norway Vs The EU: 38 Years of Beating The Odds

by Sigmund Kvaloy

Environmentalists in other European countries have been wondering for some time why and how Norway has stayed out of the European Union. Austria, Finland and Sweden joined in 1994, almost without any public debate, just a few months after their governments had proposed the joining. By then, the Norwegians had been debating the issue for 33 years, ever since their government had started the drive towards unionisation.

One reason for the success of Norwegian resistance is that in both 1962 and 1967, the two occasions when the Norwegian government sent off applications for joining the EEC, President De Gaulle of France rejected the proposal, since he feared England's inclusion at the time would complicate and slow down the EEC integration – and Norway had decided to follow England. That way, the resistance movement gained time to build its strength. When the time was ripe for EEC (later EU) expansion, in 1972, at their referendum the Norwegians had matured their resistance, and said 'no'. It came as a shock to the labour party government as well as to Norway's big business and all of the major media, who had campaigned vigorously for a 'yes' vote. The government had put its life at stake over the referendum, and had to go.

Altogether, the discussion on Norway's independence versus Europeanisation/globalisation has dominated Norway's politics now for 40 years. The resistance movement won again in a second referendum, held in 1994, and the shock to the dominating pow-

ers was this time even greater.

At the time, Gro Harlem Brundtland was the Prime Minister, and she had resorted to some desperate means to push her unwilling nation into the union. Central among these was a concerted strategy among the four EU candidates: Austria, Finland, Sweden and Norway. The first three were the non-aligned, neutral countries during the Cold War, while Norway was a NATO member. The scheme was that Austria should hold the first referendum, since that's where it was thought to be easiest to get a 'yes' vote; they had been given no time to discuss the issue. When Austria said 'yes', Finland no longer considered neutrality to be relevant, and so they decided to vote a little later. Additionally the Fins were eager to distance themselves from their old ties to the Soviet Union. Sweden was seen to be a little more difficult, and so they were placed towards the end of the list of 'neutrals'. Norway was considered to be the worst case. There it was thought that the fear of being

ostracised from the Scandinavian family would suffice to push them into voting with a confident 'yes'.

Another reason for letting Norway vote last was that North Norway, with 80-90 per cent no-voters, would face severe weather conditions at the time. The scheme was roundly condemned by the Norwegian opposition, but Gro showed little interest. So when the time for voting finally came, the North Norwegians struggled through snowstorms and arctic temperatures, boating across rough Fjord waters. The referendum attendance was up to 90 per cent and more in those areas. Even people who had never voted before, due to difficulties with reaching the voting stations, managed it this time. A few days after the Norwegian referendum, a Swedish poll showed that 70 per cent would have voted no, if they only had known how Norway would hold out.

A true explanation of this 'non-European' behaviour would need to delve back through Norway's landscape and political history, and to examine closely the forces



Having voted against joining the EU, Norway experienced an economic boom. The then PM Gro Harlem Brundtland, who had aggressively tried to persuade Norwegians to vote positively in Norway's referendum, astonishingly sought credit for Norway's stability. "After the 'no' I had to do my best to save Norway from misery, and see how I have been successful!"

which have created in Norway an identity which few would sacrifice. Norway is a country of rugged mountains and deep fjords which offered very little attraction for 'flat-land feudalism', in sharp contrast to Sweden, Finland and Denmark. Communication was difficult; isolated local communities had to build self-reliance. The Norwegian Constitution from 1814 was at the time the most radical in the world in defending the rights of smallholders. Additionally, Norway's 400 years' subjugation under Denmark (together with Iceland, the Faroe Islands and Greenland, all still out of the EU), followed by 100 years under Sweden, created a strong will for independence, again strengthened by the German occupation between 1940 and 1945. Today, a large number of Norwegians feel that what Hitler tried to achieve in the forties, is being emulated today in the form of the EU – only more subtly.

In the months leading up to the 1994 referendum, Gro tried again to scare her people into supporting integration by predicting that a 'no' vote would lead to industries leaving Norway, a sharply rising interest rate, foreign investors abandoning the country, the Oslo stock exchange crashing, the EU quitting Norway as a trading partner and Norway forfeiting her last chance of EU membership, as well as massive unemployment.

In fact, the opposite was the case: the Norwegian industries stayed at home and prospered; the interest rate fell (the day after the referendum, foreign investors crowded the country; the stock exchange experienced a boom; the EU's trade with

June 18 1999 – a worldwide day of action against the global economy

Symbolic of the new globalisation of resistance, the coming 'day of action against globalisation', on June 18th this year may turn out to be the first of many such 'festivals of resistance' in the months and years to come. June 18th 1999 is the first day of this year's G7 summit meeting, when the leaders of seven of the world's richest nations will meet in Köln, Germany, to discuss the further division of the global cake. As they do, a loose global coalition of citizens' groups, trades unions, womens' organisations, landless people, students, peace activists, environmentalists and other opponents of globalisation will come together under the slogan "our resistance will be as transnational as capital" to help give a united voice to the growing worldwide dissent.

The June 18th actions will take different forms in different countries, but the common aim is to 'occupy' financial districts all over the world in protest at the economic globalisation being promoted by the G7 and others. From London to Jakarta, from Tel Aviv to Bangkok, from Canberra to Lagos and elsewhere there will be street parties, demonstrations, protests, strikes, shutdowns and rallies, as people protest about globalisation itself and the effects it is having on their particular country and community. It is hoped that by globalising and co-ordinating resistance in this way, the world's political and corporate leaders will begin to understand how widespread opposition to globalisation already is. It is also hoped that this globalisation of active resistance may provide a model for future worldwide actions against the global economy.

June 18th website: www.gn.apc.org/june18. Subscribe to the email mailing list at listproc@gn.apc.org, or pga@agp.org. UK coordinating group, tel: (+44) 171 281 4621. Germany organising group, tel (+49) 221 952 0008. USA organising group, email ban@tao.ca. Korea organising group, tel (+82) 2 886 2853. Nigeria organising group, tel (+234) 84 236 365.

Norway increased; EU leaders promised that membership would be available to them at any time, and finally, Norwegian unemployment fell and is now the lowest in Europe. Ironically, a large number of Swedes are now working in Norway.

Gro Harlem Brundtland is fantastic in her impudence. Faced with the above list of mistakes she had the nerve to proclaim victory: "After the 'no' I had to do my best to save Norway from misery, and see how

I have been successful!" After that, she left and tried to win the candidacy for Secretary General of the UN. Losing out on that, she spent millions of Norway's state funds to win the directorship of the WHO, posing as "the Green Minister of the World".

Sigmund Kvaloy is a farmer, writer and eco-philosopher. His work has been profoundly influenced by his close association with the Sherpa culture of Nepal. He has also spent many months in Bhutan, looking at the relationships between Buddhism and ecology.

Increasing CO₂ Emissions in the South – A Corporate Agenda

As we've seen, globalisation accelerates the process of uprooting millions of people in the South, pulling them away from relative security in village communities into vast impoverished shanty towns. In the slums, the quality of life declines, but the consumption of resources escalates. Among other things, even when people are on a near starvation diet, every pound of food consumed now has to be transported and packaged, so CO₂ emissions rise. In the light of global warming, then, one of the best ways of reducing both CO₂ emissions as well as poverty, would be to strengthen the villages of the South, allowing people to maintain family and community structures and a closer contact with the land. One of the most strategic ways of doing so would be to provide the South with a decentralised renewable energy infrastructure.

However, what is happening instead is that government aid, direct foreign investment and the policies of the WTO, IMF and World Bank are foisting ever-larger scale infrastructures on the South. Multibillion dollar projects are introducing coal fired plants to China, mega-dams and a fossil fuel based infrastructure. These institutions, then, are encouraging the South to follow a fossil fuel path. In fact, oil industry chiefs like Lee Raymond, president of Exxon-Mobil, has been travelling around the developing world, warning governments not to participate in the international treaty process on climate change if they want to attract inward

investment!

The global corporations need the cheap labour in the South and abundant raw materials. This is where most of the global growth is possible today. In the industrialised countries, where salaries are high and resources both more depleted and protected, global corporations cannot reap as large profits, so the expansion into the South is essential. It is they who are behind the notion that the North cannot tell the South what to do. The argument goes like this: we in the North have no right to tell the South that they should not follow in our footsteps. This argument ignores the fact that the South has no colonies to exploit, that they cannot follow in our footsteps. Consumer lifestyles in the North have only been possible because of exploiting vast areas of the globe. It is of course essential therefore, that the West immediately reduce its consumption of fossil fuels as well as other natural resources.

Even though it might go against the interests of the Third World elite, it is vital that the environmental movement pressure for a shift away from the mega-billion dollar projects that are increasing fossil fuel consumption in the South and lobby for a decentralised renewable energy infrastructure. Throughout the South in particular, there is tremendous potential for using solar energy. To introduce such an infrastructure would therefore cost much less money than the current projects that are being imposed on the South. This would help to reduce both pollution and poverty.

Continued from page 202

taxes, social welfare taxes, value-added taxes, payroll taxes etc. Meanwhile, tax breaks (accelerated depreciation, investment allowances and tax credits, etc.) are given to the capital- and energy-intensive technologies used by large companies. Reversing this bias in the tax system would not only help local economies, but would create more jobs by favouring people instead of machines.

• Shift Energy Policy

Across the world, the Western model of fossil-fuel-based energy provision is being pushed. Shifting support instead towards a decentralised renewable energy infrastructure would help to stem the urban tide in both North and South by strengthening villages and small towns. Since most of the 'developing world' has a greater potential for using solar power and other forms of renewable energy than the North, and since the energy infrastructure in the South is not yet very developed, there is a realistic possibility that this could be implemented in the near future if there were sufficient pressure from activists lobbying Northern banks and funding agencies. In the North, where societies rely completely on the fossil-fuel model it may be more difficult, but is no less vital.

• Institute Regulatory Reform

Big businesses also benefit from a range of government regulations – and in many cases, a lack of regulations – at the expense of smaller enterprises. Among the measures needed here are:

- *A moratorium on new mergers and acquisitions. Activists are currently finding themselves in the absurd position of having to defend a big corporation (X) against a take-over by an even bigger corporation (Y), while at the same time working to defend small businesses against corporation X.*
- *Limiting the flow of capital would help to reduce the advantage that huge corporations have over local enterprises, and help to make corporations more accountable to the places where they operate.*
- *A careful application of trade tariffs to regulate the import of goods which could best be produced locally would be a way of safeguarding jobs and defending local resources against the excessive power of transnational corporations.*
- *In 'developed' countries, an unfair burden often falls on small-scale enterprises through regulations aimed at problems caused by large-scale production. For example, a local entrepreneur wanting to bake cakes at home to sell in local shops would in most cases need to install an industrial kitchen to meet health regulations – making it economically impossible. Regulations should be shaped according to the size of businesses.*

• Refocus Development Assistance

A major reorientation of international development assistance is

needed: away from the development of infrastructure to facilitate globalisation; away from imposing fossil fuel dependence and large-scale hydro-power and away from urbanisation. Instead, development money given to the South by the North should focus on strengthening rural economies through a range of interlinked policy shifts in the fields of the economy, science, technology and education.

• Institute Democratic Land Reform

It is important to realise that roughly 50 per cent of the human population is still on the land, and that most of the people in the so-called 'Third World' are still living in villages. Globalisation has been systematically removing people from the land. This

means shunting them into urban centres which lack sufficient employment and services, and where they find themselves dependent on food produced by large agri-businesses. Land reform – which will, of course, need to be tailored to the specific needs of countries and localities – is needed in both North and South, to stop the tide of urbanisation and to give small farmers and ordinary people genuine control of land in their local area.

• Encourage Public Spaces

Particularly in the North, government subsidies have encouraged the death of town centres and traditional markets, and their replacement with vast superstores accessible only by car. Spending money instead to build or improve spaces for small-scale public markets – such as those that were once found in virtually every European town and village – would enable local merchants and artisans with limited capital to sell their wares. Similarly, support for farmers' markets would help to revitalise both the cities and the agricultural economy of the surrounding regions, while reducing the money spent to process, package, transport and

advertise food. In the South, traditional markets and public spaces should be maintained, and any drives towards import-orientated superstores should be resisted.

• Localise Health-care

Investments in health-care generally favour huge, centralised hospitals serving urban populations. Spending the same money instead on a greater number of smaller clinics would bring health-care to more people, boost local economies and ensure better, more personal treatment. Health-care rooted in indigenous knowledge and practices would also emphasise the importance of traditional alternatives.

• Rethink Education

Currently, as David Orr explains earlier in the issue, political leaders are encouraging major changes in education in order to make nations economically more competitive. This Northern model of corporate-focussed education is being imposed on the South in wholly inappropriate ways. A change is needed towards localisation, recognising the specifics of each ecosystem and appreciating the importance of locality and place.□



Women play a big role in the life of Zapatista communities.

Reclaiming Our Food: Reclaiming Our Future

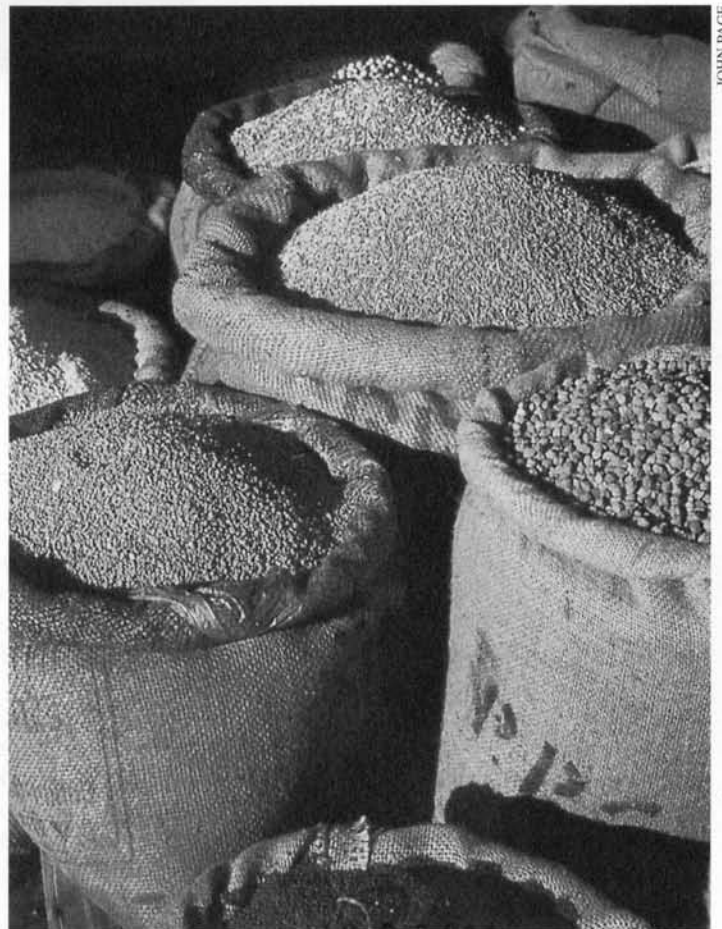
Every year, millions of small farms and businesses are killed off in the march of globalisation. But the local food movement is one of the most successful grassroots examples of localisation in action, sweeping the world and gaining momentum with each passing day. It is one of the most strategic and rewarding ways to ensure a safer and healthier future for all. And the benefits are immediate. **By Helena Norberg-Hodge.**

Paris in the 1970s was a city full of character and life. Each quarter had its own colourful market, selling wonderful fruits, all kinds of vegetables, meats, superb cheeses and wine. All of that diversity originated at no great distance: most of it came from different regions of France, if not from the immediate surroundings of Paris. Today it can be difficult to find garlic in Paris that has not travelled from China. In the supermarkets, grapes from Chile and wine from California are increasingly commonplace. The diversity of French foods is in decline, and those that are available are becoming more and more costly.

In the little villages of Southern Andalucia in the 1980s, almost all the food in the shops came from the villages themselves or the immediate region: goat's cheeses, olives and olive oil, grapes, fresh and dried figs, wine and many different kinds of meat. Today you will find almost nothing that has been produced locally. The olives may have been grown in the surrounding region, but they have travelled to the metropolis to be packaged in plastic and then sent back again. Virtually everything sold is vacuum-sealed in layers of plastic. Even cheese rinds are now made of plastic.

Britain will this year export 111 million litres of milk and 47 million kilograms of butter, while simultaneously importing 173 million litres of milk and 49 million kilograms of butter.

In line with these trends, Britain will this year export 111 million litres of milk and 47 million kilograms of butter, while simultaneously importing 173 million litres of milk and 49 million kilograms of butter. Apples will be flown 14,000 miles from New Zealand and green beans brought 4,000 miles from Kenya. We might wonder how these can possibly compete with local apples and beans – surely food produced locally should be cheaper? But it isn't. Generally speaking fresh local food is instead vastly more



JOHN PAGE

expensive than food from faraway. The main reason for this is government investments and subsidies.

As other articles in this issue have made clear, governments – that's you and me, the taxpayers – fund the airports, motorways, high-speed rail links, tunnels, bridges and communications satellites that make the supermarkets' global trade possible. We also subsidise the aviation fuel and energy production on which supermarkets depend. And we help fund the research and advice for farmers geared towards biotechnology, mechanisation and intensive chemical use. Local traders, small-scale farmers, retailers and manufacturers pay the price through their taxes and also through being forced out of business.

Some people might argue that there is nothing wrong with such developments – that they are a sign of progress and the emergence of a global, cosmopolitan society based on the principle of choice. But the purported diversity offered by the global economy and its supermarkets is based on modes of production that are condemning producers to monoculture. The result is that day by day the diverse cheeses from France, the apple varieties of Devon and

Right and far right: Organic farmer's market, Bath.

the olive groves of Andalusia are ripped out or replaced by standardised hybrids, to suit the long distance, large scale marketplace. Small producers are being pushed out by the need to produce ever larger monocultures, with the mechanised production and high levels of chemical inputs that this entails. And this in turn has negative repercussions for the entire rural economy.

Recently, citizen groups around the world are beginning to realise that it is our highly centralised and subsidised economic system itself – rather than the inefficient management, or insufficient scale, of it – that is the prime culprit behind food shortages in the South and food scares like BSE, salmonella and GMOs in the North. Increasingly, grass-roots movements are pressing for major policy changes at national and international levels in order to bring the global financial markets under control. They are also working, against the economic odds, to strengthen local economies. And of all the groups promoting localisation, probably the most successful is the local food movement.

Re-localising Food: it's Already Happening

For virtually the whole of human history people have relied on food produced within reasonable distances. The logic is unassailable: locally grown food is fresher, and so tastier and more nutritious, than food transported over long distances. It is also likely to



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be healthier, because the producer knows the consumers, and doesn't view them merely as a faceless 'target market', and so is less likely to take risks and liberties with preservatives and other artificial chemicals. Increasingly, faced with a bland, globalised food culture, people are realising the advantages of local food, and are working to rejuvenate markets for it.

In the UK, for example, the first 'farmers' market', set up in the city of Bath in 1997, was restricted to producers based within a 30-40 mile radius. Public interest in the Bath market was extraordinary, with over 400 callers ringing the market itself in the first few weeks, many of them asking for information on how similar initiatives might be set up in their own areas. Enthusiasm for farm-

Growing Food – Leaving Crime

More and more people in the industrialised world are making great efforts to forge healthier relations with the natural world. In California, an extraordinarily successful Garden project has been established in the San Francisco County Jail by Cathrine Sneed. Inmates at the prison are taught how to garden, and the foods produced are sold to Bay Area restaurants as well as given free to soup kitchens and community centres. For Halloween in 1998, for instance, inmates were able to grow 1000 pumpkins which were given out to schools in deprived areas

where many of the children had never seen a pumpkin before. The project has also set up a market garden outside the prison for inmates to work in after they are released from prison.

More significantly, Sneed has discovered that working with the land on a regular basis has helped reduce the rate at which convicts re-offend.

Since the programme began in 1982, more than 10,000 prisoners have been involved. Many participants in the programme have said that Cathrine Sneed

changed their lives. As she sees it, she merely taught them how to garden. "The garden gave them something good – a feeling of faith in themselves, that they had never had, and then *they* changed their lives."

Cathrine Sneed will be one of the speakers at this year's Tenth Anniversary Bioneers Conference in California from 29-31 October on "Visionary and Practical Solutions for Restoring the Earth". For further information, check the Bioneers website at www.bioneers.org or call 1-877-BIONEER in the United States.

The Edible Schoolyard

Martin Luther King Jr. Middle School in Berkeley, California, is undergoing a dramatic change. The school's neighbour, Alice Waters, founder of the world-renowned Berkeley restaurant *Chez Panisse*, when confronted during a visit to the school by the concrete expanse in which the children are expected to play, saw something quite different. She saw a world of possibilities. Her own vision of food, she felt, could equally become a new vision for education.

There is, according to Waters, an "innate connection between food and the quality of people's lives." Instead of asphalt and vending machines, Alice saw a garden and kitchen. Instead of food as fuel for the body,

she saw it as a way to give and share the best of people's skills and resources. Her vision of a meal "honours the material from which it is made, the art by which it is done, and those who share it."

Alice and the school's principal, Neil Smith, joined with teachers, students, local community members and funders to create what she has termed the Edible Schoolyard. When mature, the project will have created a revitalised 17-acre campus, with ivy-covered buildings, an organic garden, an outdoor bread oven, a commercial bakery, groves of olive, fig and citrus trees, and flower and herb beds. Her hope is to create "a school within a garden, rather than mere-

ly a garden within a school."

By combining the activities of gardening, cooking and eating in a curriculum that emphasises environmental stewardship and experience-based learning, teachers are learning the profound socialising effect of gardening. As one of the teachers commented: "You hear a lot about back-to-basics approaches, which are said to be reading, writing and arithmetic. But this project goes really back to the basics – like what does it mean to work, to initiate something, to complete something, and to see an end product."

Adapted from an article by Roy Doughty in *Learning in the Real World*.

ers' markets is such that the Soil Association, which promotes organic farming in the UK, is now offering one-day courses on how to set up a farmers' market, and such markets are now planned or already operating in numerous towns and cities across the UK. In New York, USA, there are over two dozen farmers' markets, adding several million dollars annually to the incomes of farmers in nearby counties. Cornell University's 'New Farmers New Markets' programme aims to add to these numbers by recruiting and training a new generation of farmers to sell at the city's markets. The project is particularly interested in unemployed immigrants who have extensive farming skills.

At the same time, more and more people are also joining a variety of community supported agriculture (CSA) schemes, in which consumers in towns and cities link up directly with a nearby

Locally grown food is fresher, and so tastier and more nutritious, than food transported over long distances. It is also likely to be healthier, because the producer knows the consumers, and doesn't view them merely as a faceless 'target market'.

farmer. In some cases, consumers purchase an entire season's produce in advance, sharing the risk with the farmer. In others, shares of the harvest are purchased in monthly or quarterly instalments. Consumers usually have a chance to visit the farm where their food is grown, and in some cases their help on the farm is welcomed too. This movement is sweeping the world, from Switzerland, where it first started 25 years ago, to Japan, where many thousands of people are involved. In America, where all but two per cent of the population have already been pulled off the land, the number of CSAs has mushroomed from two in 1986 to almost 1000 today. Usually, small farmers, dependent on markets beyond their reach, continue to go bankrupt at an alarming rate every year, but direct marketing is reversing that trend.

In the UK, the local food movement is particularly successful and widespread. The idea is to eliminate the giant 'middle men' in the food business, who scoop up so much of the money spent on



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Growing Organic

Over the past few years, interest in organic agriculture has increased dramatically throughout the world. Understandably so, as this period has seen an alarming increase in e-coli and salmonella poisoning through North America and Europe, not to mention BSE (or 'mad cow disease') in the UK, all of which have led to food scares. This same period has also witnessed the emergence of unpredictable genetically modified (and unlabelled) foods onto the marketplace. What's more, with over 70,000 man-made chemicals currently in use around the world, and another 1,000 new chemicals released every year, we are living in an ocean of pollutants, and the public, by and large, is beginning to worry. Consumers are therefore growing sceptical about the food safety claims made by giant corporations in the food industry, and their government regulatory agency partners. More and more people realise that the best way to ensure the safety and nutritional value of the food they eat, as well as the best way to ameliorate the harm-

ful impact of agriculture upon the Earth, is simply to buy organic – preferably local organic.

The United States Department of Agriculture (USDA) estimated that there were 1,127,000 acres under organic production in the USA in 1994. The Organic Farming Research Foundation in Santa Cruz, California, estimates that there were approximately 10,000 organic farms (certified and not) in the United States in December 1997. The estimated average size of an organic farm in the US is 139 acres, which means that in 1997 there were roughly 1,390,000 acres under organic production in the US. The period between 1994 and 1997 saw an approximate 23 per cent increase in acreage under organic production in the US. There has been a corresponding rise in consumer demand for organic foods. According to the Natural Food Merchandiser, there was a 22 per cent increase in the mass marketing of organics in the US between 1994 and 1995.

The numbers for some European

countries are even more impressive. The Welsh Institute for Rural Studies, which collects data on organic farming throughout Europe, estimates that between 1994 and 1997 the number of organic farms in EU countries jumped from 33,000 to 80,000, with the amount of land under organic production increasing from 0.77 million hectares to nearly 2 million. The largest increases were in Italy, Austria, Sweden and Spain (primarily due to government subsidies that are encouraging adoption of organic methods).

These statistics indicate a growing worldwide movement back to more sustainable methods of agriculture and that trend has been accompanied by a substantial increase in the number of ways consumers can forge closer links with farmers, through farmers' markets (the 1996 USDA farmers' market directory lists 2,411 farmers' markets in the US, up from 1,755 in 1994), and community supported agriculture (CSAs).

– Todd Merrifield.

Market stall in London selling fruit and vegetables.

food. Instead, farmers forge direct relationships with small-scale processors, shops or directly with consumers who order fresh produce directly from the farm which is brought to them in boxes once a week. A local food-promoting scheme in the Forest of Dean, which has only been running for just over a year, has already sold £25,000 worth of local food to local people. The 'Forest Food Directory' lists 32 different food producers, with products ranging from organic and free-range meat, through to veggie-box schemes and local cheeses. A survey early this year revealed that some small local producers have seen their turnover increase by up to 25 per cent as a result of the scheme, and its popularity is still growing.

People buying direct from the producers of their food are often very enthusiastic about the quality, and about the manner in which it is bought. In her book, *'Local Harvest'*, Kate de Selincourt, quotes some satisfied customers:

"The quality is superb... There is no possible comparison with the taste. You feel really sorry for the people going to the supermarket."

Farmers are also satisfied with such direct relationships: when farmers are allowed to sell in the local marketplace, more of the profits stay in their hands. Currently, only about 5 pence in every pound spent on food goes to the farmer. The rest goes on such things as transport, packaging, irradiation, colouring, advertising and corporate profit-margins. But when these links are closed, the farmer receives more money and the consumer pays less. Both



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win. Kate de Selincourt asked farmer Pat Finn why she sells direct to customers rather than through a supermarket or butcher's shop:

"We really enjoy the personal side of the work – it is nice to think that we have become so friendly with people just through business."

Often, the joy of a direct connection between producers and consumers is that their ideals coincide. They want the same things: small-scale production and high organic quality. They both want freshness, variety and a non-exploitative price. Social life often flourishes when like-minded suppliers and consumers meet as friends.

Direct communication between producers and consumers creates a responsive economic system, one shaped by the needs of society rather than the needs of big business. Local food markets

Creating Permanent Culture

by Maddy Harland

"Permaculture, originally 'Permanent Agriculture', is often viewed as a set of gardening techniques, but it has in fact developed into a whole design philosophy, and for some people a philosophy for life. Its central theme is the creation of human systems that provide for human needs, by using many natural elements and drawing inspiration from natural ecosystems. Its goals and priorities coincide with what many people see as the core requirements for sustainability." – Emma Chapman, Permaculture Magazine

Permaculture tackles how to grow food, build houses and create communities and minimise environmental impact at the same time. It offers a low energy input alternative. Its principles are being constantly developed and refined by people all over the world in different climates and cultures. A forest garden is a good example of permaculture design. Imagine a natural forest. It has a high canopy of trees, lower layers of small trees, large and small shrubs, and herb and ground layer plants, including

plants which are mainly below ground and climbers which occupy all these layers. The production of plant material is mind-boggling compared to a wheat field which is only a single layer of plants occupying about half a metre of vertical space.

The trouble is, we cannot eat much of what grows in a natural forest. Instead, we can take the principles of the multi-layered forest and select wild and cultivated plants that yield food, fibre, biomass for building and heating, plants to increase soil fertility and species to support wildlife. We can also create clearings and vertical 'edges', places where the sun can penetrate to ripen fruit and vegetables. We can't grow the ingredients of a loaf of bread here, but you can grow many perennial and self-seeding plants which either crop or store throughout the year. What we are creating is a system that is relatively self-sufficient in energy terms and requires few resources to be imported from far away.

We can complement a forest garden with grain growing systems, by using Masanoba Fukuoka's system of natural farming or by developing the work of pioneers such as Wes Jackson, an agriculturist

who is part of a movement to discover and select perennial grains and grow them in a permanent pasture.

Growing food with low inputs is one example of permaculture design but the principles of permaculture are incredibly versatile and are not limited to the production of food in a home garden or perennial pasture. They can be applied to the design of any human systems, from an average household to architecture, town planning, water supply and purification, and even to commercial and financial systems.

Permaculture draws upon both traditional methods and modern innovation. It also draws upon the skills and needs of individuals and uses nature as a model for consciously designing sustainable systems to suit individual circumstances. The aim is to use the power of the human brain, applied to design, to replace human brawn or fossil fuel energy and the pollution that goes with it. It is a system of earth repair.

Social Benefits of Permaculture

What happens when we start practising permaculture? Firstly, we begin to look at the impact we have on the earth and try to

by their very nature create consumer demand for a wide range of products that are valued for their taste and nutritional content, rather than their ability to withstand the rigours of long-distance transport or conform to supermarket specifications. This therefore helps to stimulate diversification, allowing farmers to change their mode of production away from monoculture to diversified farming. The local food movement allows a return to mixed farming.

Currently, only about 5 pence in every pound spent on food goes to the farmer. The rest goes on such things as transport, packaging, irradiation, colouring, advertising and corporate profit-margins. But when these links are closed, the farmer receives more money and the consumer pays less.

systems, where farmers can keep animals and grow some grain, some vegetables, some tree crops and some herbs on the same land. That diversity allows for cycles that reinforce one another in both ecological and economic ways. When animals, grain and vegetables are combined on the same farm, they all feed each other: the grain and vegetables feed both humans and animals, while the straw provides bedding for animals and also converts poisonous slurry into valuable fertiliser. The farmer thus finds the required inputs within easy reach, without having to pay for them, whereas farmers who are forced to produce monocultures are dependent on ever more expensive external inputs. A strong local food economy also provides farmers with the opportunity to diversify into value-added products.

Local production is also conducive to a gradual reduction in the use of artificial chemicals and other toxic substances. Food sold locally does not need to contain preservatives or additives, and doesn't need to be transported vast distances in lorries or planes.

lighten the load. An easy way to begin is to start with growing our own food. Replacing externally produced resources with homegrown resources is important. There are numerous simple ways of doing this, including composting all organic matter;

What we are creating is a system that is relatively self-sufficient in energy terms and requires few resources to be imported from far away.

using composted and recycled materials to mulch and build soil fertility; joining a Local Exchange Trading Scheme to find skills and materials within the local community; joining a local permaculture group to share information, tools, practical tasks, seeds and plants and so on...

In the garden, we can discover a whole new world of interesting foods: perennial and self-seeding salad plants and delicious varieties of fruit that you will never find in the supermarket. Our diets change, the food we eat is seasonally based and gardening makes us more aware of the

rhythms of nature.

Permaculture actively encourages wildlife into the garden, using techniques like companion planting, mixing herbs, trees, bushes and vegetables with flowers that attract beneficial insects. Ponds, however tiny, attract frogs and toads, log piles attract hedgehogs and these creatures in turn prey upon slugs and snails. The aim is to control pests by creating a stable ecology with a diversity of species. Stability and diversity help create an environment with healthier plants, which can resist disease. As well as the satisfaction of feeding ourselves fresh, organic food, the gardener welcomes frogs, toads, hedgehogs and all manner of insects and native birds into the garden.

For me, spring is connected to vibrant shoots of winter-hardy greens, summer to the fragrant perfume of greengages, autumn to the abundance of plums, pears, apples, blackberries, sloes and winter for rest and consolidation, whilst we gorge our way through home-grown stores until early spring comes round again. Contact with the soil reminds us that we are an integral part of nature, rather than feeling shut out and excluded. The simple acts of

Local Agenda 21

A number of the initiatives emerging in the UK particularly are encouraging:

- Sustainable Agriculture in Devon, for example, is a wide range of projects and partnerships aimed at finding ways to make agricultural practice in the county more sustainable and at integrating these with other work for sustainable development in rural communities. It involves a number of interrelated initiatives ranging from those based around individual farms and local communities to more strategic county-wide programmes.
- In Hereford and Worcester, the LA21 Action Plan has grown out of eight working groups. The group's interests include local exchange trading systems (LETS), credit unions, garden and allotment initiatives, and business involvement in the community. The group's objective is "a future of self-supporting family and neighbourhood networks, vital local communities where every contribution – material, emotional and spiritual – is valued."
- West Somerset District Orchard Regeneration Scheme is a project trying to breathe new life and vitality into the neglected village orchards of West Somerset. Through partnership with a major cider manufacturer, the scheme is designed to revitalise the market for local produce and provide new opportunities for employment in the area. It is hoped that village orchards may once again become a central part of local economic activity, as well as providing a haven for wildlife.
- Urban Oasis is a self-help partnership working to improve the environment and re-create a sense of community around a high-rise block in an inner-city area of Salford, close to central Manchester. One of the specific objectives of the project is to reintroduce biodiversity to a derelict, inner-city landscape by creating diverse orchards, allotments, wildlife ponds and wild flower and herb gardens. Again, the idea is to enable local people to grow healthy organic food, and to interact more closely with the natural world.

– Ben Saville.

growing and eating our own food, recreating habitats in which nature's diversity thrives, and taking steps to live more simply are practical ways of living which connect us to an awareness of Nature's seamless whole. Permaculture is a spiritual reconnection as well as an ecological strategy.

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In addition, when we produce food locally, we do not need to subject the land to the conformist rigours of centralised monoculture, eradicating competing plants, birds, insects and other animals. By promoting polycultures for local production, we allow people and nature space to move and breathe: diverse people, plants and animals regain their place in local ecosystems.

The local food economy is the root and fibre of the entire rural economy, and efforts to strengthen it thus have systemic benefits that reach far beyond the local food chain itself. Although only two per cent of the UK population is employed in agriculture, 14 per cent rely on it indirectly for a significant proportion of their income, (according to Caroline Cranbrook in her November 1998 paper to the Farm Retail Association Conference, entitled "*Supermarkets and the Local Food Economy: the Importance of the Farm Shop*"). A complicated web of interdependence, comprising farmers, farm shops, small retailers and small wholesalers, and spreading out from farming into all of its allied trades, underpins the economy of the market towns and villages, their tradespeople, bankers and other professional service-providers. Farm shops, for instance, sell not only their own farm produce, but also products from other local sources. As well as providing direct employment, therefore, they also help sustain many other producers and shops down the line. This is why the local food system is critical to the survival of local communities and the modern countryside.

Simple steps towards closer links between farmers and consumers are thus helping to rebuild community, enhance human health and restore ecological balance. In joining the local food movement we take an apparently small step that is good for ourselves and our families. At the same time we also make a very real contribution towards preserving biodiversity, the environment in

Slow Farming

"I invariably saw on this farm what is not to be seen throughout the length and breadth of the countryside except now and again and in out-of-the-way places. I saw what is utterly unknown in any modern factory. That was men smiling at their work, an extraordinary experience. They did not only smile when the boss accosted them or when talking among themselves. They smiled while they were working and this was a revolution very different from the cult current trend of revolutions. If men could smile at their work once again as they did when they were responsible craftsmen, there would be no more revolutions, for the men who make them are those that frown or yawn. No wonder these men smile. They were bringing order and beauty out of the ugly litter of efficiency farming. If a man on this farm was blamed, it was for going too fast, not too slow, for the speed of industrial farming is the deadly foe of thoroughness. Now men were working for the land as of old they had worked to build the flint churches that were now falling stone by stone into ruin." – H.J. Massingham, *The Curious Traveller* (1950)



Organic farmer's market, Vermont, USA.

general, regional distinctiveness, while protecting jobs and rural livelihoods. This is true not only in the industrialised world, but particularly in 'developing' countries, where often as much as 80 per cent of the population lives by farming, forestry or fishing. The drive towards cash crops for export pushes small producers off the land in many developing countries and often creates local food shortages. Ensuring that land and fisheries remain in the hands of small producers concerned with producing for the local market is a better guarantee of food security, economic health and ecological sustainability than large-scale export-oriented production.

Big business would like us to believe that diversifying and localising food production leads to inefficiency, job losses and economic hardship. The reality is that the opposite is true: as more of the wealth created by the community stays in the community, jobs are created locally and the prosperity of small businesses is secured.

Tipping the Scales Towards Local Production

For local food systems to genuinely prosper and flourish and be replicated in large numbers around the world, changes at the policy level are clearly necessary. Current economic policies across the globe are artificially lowering the prices of industrially-produced foods by shifting the costs of production onto the community. If groups campaigning for sustainable farming, wildlife issues and better food do not take these hidden subsidies into account, and do not challenge the economic basis of our current monocultural, export-based food system, they risk falling into the trap of arguing that consumers should pay *more* for better food – when, as farmers markets etc. show, they can actually pay *less*. This approach marginalises the poor and opens campaigners to charges of elitism. Furthermore, to overlook hidden subsidies is to miss a fantastic opportunity: if these resources were diverted towards sustainable agriculture and local marketing, we could have better food at no extra cost at all. In fact, the price of fresh local food would come down.

Recognising the global consequences of the economic system also gives food, health and environmental groups common cause with those campaigning for social justice and the 'Third World'. Access to fresh, healthy food is coming to be seen as a fundamental human right, and these diverse movements are now beginning to join hands to demand a different set of economic priorities, and the redrawing of the global economic map.

The most important thing to remember is that we *do* have the power to change things. The destructive, global economy can exist only as long as we are prepared to accept and subsidise it. We can reject it. And we can start today to build a local food movement, and enjoy the wealth of benefits from re-linking farmers and consumers. Fresh, local food for all may be one of the most rewarding – and delicious – ways to save the planet!□

Bringing the Economy Back Home: Towards a Culture of Place

A community movement is sweeping the industrialised world – bringing huge social, environmental and psychological benefits. **By Helena Norberg-Hodge.**

What 'Localisation' Means

Localisation, above all else, is about *place*, it is about living and producing locally as far as possible. It is about knowing and understanding your local area and community, whether it be a hill village in Bhutan or a London postal district. And it is about a *sense* of place – that which, most of all, makes human beings feel that they genuinely *belong*. The word local comes from the Latin *locus*, meaning 'place', and it is this sense of belonging to a community rooted in a particular area, with distinctive environmental and cultural characteristics – and the sense of community with nature, with the stars above us and the soil under our feet – that has been lost in many areas of the 'developed' world today. Localisation is about reweaving those relationships.

Localisation is also, of course, about economics – about bringing the economy back home, by shortening the distance between producers and consumers and creating economies of a human scale that allow us to act in a caring and intelligent way and to subsume the economy to ethical, social and ecological considerations. It is in robust, local-scale economies that we find genuinely 'free' markets; free of the corporate manipulation, hidden subsidies, waste, and immense promotional costs that characterise the global market.

What Localisation Isn't

Let us also be clear at the outset what localisation is not about. It is *not* about regressing to a brutish, uncomfortable life. It is not about ending all trade and abolishing all technology. It is not about retreating into isolationism or nationalism. It is not about severing links with other nations and cultures. Instead, localisation is about renewal – of skills, of cultures, of environments, and it is about using resources, technology and economic systems accountably, locally and on a human-scale. It is about putting the local economy first and the global second on both sides of the world.

An emphasis on the local economy *can* be misconstrued as a call for total self-sufficiency and an end to all trade, but this is a serious misunderstanding. Trade in one form or another has been a fact of life for millennia, and can be beneficial to all concerned.



PANOS PICTURES

It is not trade that is itself destructive, but rather a dependence on vast unaccountable trading institutions. The point about localisation is not that trade would end, but that trade would be secondary to the most important goal – meeting people's basic needs using the resources available within relatively short distances. The issue is not whether people in England should be able to buy imported oranges and bananas, but whether their wheat, eggs, milk and potatoes – in short, their staple food needs – should travel thousands of miles as they currently do, at great environmental and economic cost, when they could be produced within a fifty-mile radius. Localisation would not attempt to eliminate trade, but it would reduce this sort of unnecessary transport while strengthening and diversifying economies at the community as well as the national level. The degree of diversification, the goods produced, and the amount of trade would, of course, vary from region to region – this diversity is what makes the localisation process profoundly ecological and therefore sustainable.

Another misconception is the idea that localisation would be economically disastrous for segments of the population – leaving some people without food and without jobs. In particular, it has been suggested that localisation in the North would undermine the economies of the South, since it is thought that people there need to sell to Northern markets to lift themselves out of poverty. On the contrary, a shift towards smaller-scale, more localised produc-

tion would actually be of even greater economic benefit to the "Third World". Since its inception in the colonial era, the globalised economy has required the South to send a large portion of its natural resources to the North as raw materials; and its best agricultural lands are devoted to growing food, fibres, even flowers, for the rich countries; in addition, a good deal of its workforce is used as cheap labour in the manufacture of goods for Western markets. Globalisation also pulls millions of people away from a relatively secure existence in a land-based economy into urban slums in which they have very little hope of finding any gainful or meaningful employment. Localisation, on the other hand, would allow the South to keep more of its resources, labour and production for itself. It would offer the majority, in both North and South, prospects of secure meaningful, skilled local work, rather than working for a corporation at the whims of the global economic winds.

How do we get there?

Many people find it difficult to imagine a shift towards a more local economy. Yet there is a long tradition of very eminent proponents of the idea of economic decentralisation – including, of course, Gandhi and E. F. Schumacher. In addition to other authors in this issue, the German sociologist Maria Mies, and Bob Swan and David Moris in the US have been articulate and active for several decades in promoting the notion. Strong local economies, far from being utopian ideals, have served admirably in many parts of the world for millennia, and continue to do so. Moreover, despite the enormous weight of the global economy – the subsidies, the incentives, the tax breaks, the government support, etc – there is a

proliferation of inspiring and truly positive grassroots initiatives all around the world today. Responding to globalisation, and not liking what they see, many communities are already taking action to bring the economy back home – back to place, under the control of more visible and democratic institutions.

The ever-more popular 'Buy-local' campaigns are helping local businesses survive even when pitted against heavily subsidised corporate competitors.

These many initiatives are, by their very nature, small-scale, and we rarely get to hear about them in the media. But they are happening – all around the world, one can see micro-trends which represent a turning towards nature and fundamental human needs. Though the homogenising and dislocating forces of the global economic system are alienating people from one another, from the natural world and from themselves, these micro-trends in the opposite direction show that life will go on, and that the forces of people and nature cannot be subverted. Like weeds growing in the cracks of cement, positive initiatives and hopeful signs keep springing up. Those weeds are growing stronger, more vociferous and more numerous, and they are literally everywhere.

We have already seen, for example, that the Local Food Movement is sweeping the world as people wake up to the multiple benefits of shorter links between farmers and urban consumers. And we have seen that throughout the developed world, communities are creating their own local currencies. Ithaca, New York, is home to one of the most successful of these. Begun in 1991, the system

Eco-Villages

For several decades now it has been obvious that industrial-affluent-consumer society is wholly unsustainable. Per capita resource consumption typical of the industrialised North is far beyond levels that can be maintained for very long, let alone extended to all the world's people. Sustainability, therefore, cannot be achieved without fundamental change, and we will need to adapt our lifestyles accordingly. Primary among our list of priorities is the need for a shift in direction from global to local, and this will include the rebuilding of largely self-sufficient communities and regions.

There can be little doubt that eco-villages, ecological settlements which enable people to live well without consuming many

resources, will to a large degree form part of the overall solution.

The Global Eco-village Network is well established in the task of pioneering "intentional rural communities", i.e., whole new communities of people who have come together with the purpose of building a sustainable and co-operative settlement.

The few eco-villages actually in existence are truly inspirational, and serve as the "concrete examples" that are much needed throughout the world. But despite the growing number of people interested in pursuing such strategies, these initiatives are often threatened (where they exist) and very difficult to get off the ground, because the structures of the global economy work

against such localised, small-scale efforts. Unconditional support from non-governmental and non-corporate sources is essential, as is the ability to connect with other groups engaged in such efforts. Since 1990, the Global Eco-village Network (GEN) has provided such invaluable assistance to fledgling eco-villages all over the world. Ross and Hildur Jackson of Gaia Trust have been the guiding spirits of GEN, and their vision and generosity have been remarkable, especially because of their willingness to fund bottom-up initiatives by other people, rather than imposing their own agenda. – Ben Saville.

For more information, see: Ted Trainer, *The Conserver Society*, 1995, and *Saving The Environment; What It Will Take*, 1998.



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has over \$50,000 of local currency in circulation today, and is used by over 1000 participants. Other currencies based on this model are already being used in 12 states in the United States. Another encouraging trend is the return of the barter economy, or Local Exchange Trading Systems (LETS). LETS schemes have sprung up in the UK (where there are over 300 in operation), Ireland, Canada, France, Argentina, the United States, Australia and New Zealand, and are a means of bringing even the marginalised back into the economy. People list the services or goods they have to offer and what they have to offer in return. Their account is credited for goods or services they provide to other LETS members – from gardening to massage to the loan of a lawnmower – and they can use those credits to purchase goods or services from anyone else in the system.

The ever-more popular 'Buy-local' campaigns are helping local businesses survive even when pitted against heavily subsidised corporate competitors. These movements have proved most powerful when supported – as they increasingly are throughout the world – by grassroots organisations which oppose the intrusion of huge corporate chains into rural and small-town economies. For example, McDonald's – which aims to open a new restaurant somewhere in the world every nine hours – has met community resistance in at least two dozen countries. And in the USA and Canada, the rapid expansion of Wal-Mart, the world's largest retailer, has spawned a whole network of activists working to protect jobs and the fabric of their communities from these sprawling superstores.

In a number of places, community banks, credit unions and loan funds have been set up, increasing the capital available to local residents and small businesses at a relatively low interest rate and under community-based conditions. They allow people to invest in their neighbours and their community, rather than in distant corporations.

Perhaps the most complete antidote to dependence on the global economy has been the eco-villages movement. Across the industrialised world, people are building communities that attempt to get away from the waste and pollution, competition and violence of contemporary life. Many rely on renewable energy, and



STILL PICTURES

From Global to Local – From Urban to Rural

Achieving a balance between global and local also means achieving a balance between urban and rural. Ruralisation in the South means protecting viable village economies and resisting the pressures to move to the slums. In the North it means removing hidden subsidies so that smaller scale businesses are competitive and village shops, pubs, schools and other amenities can flourish again. It means reforming agriculture to make small farms not only viable but attractive. In a world where small businesses compete with each other in a genuinely 'free' market, there will be no need for them all to be based in capital cities. They can go rural, and help life return to the countryside.

Across the developed world there is a widespread belief that we are now an urban species, and that this is a good – or at least an irreversible – thing. From an evolutionary perspective, though, the vast cities of the 20th century are a sudden aberration. We lived for 99 per cent of our evolutionary career in small tribes in wilderness areas, and for most of the other 1 per cent in villages

and hamlets, or in small towns surrounded by countryside.

Proponents of urbanisation believe our rural roots, and any sort of connection with the land, are unimportant – that urban or suburban lifestyles can satisfy all our needs. They also believe that a successful culture does not require a stable and prosperous rural foundation, and that cities, in contrast to everything else on Earth, have no maximum size beyond which they decay or collapse.

In fact, a number of converging forces suggest it is possible that this long-term trend towards urbanisation will begin to slow or even reverse. These forces include the end of the era of cheap fossil fuels (which have enabled us to provision large urban populations); the vulnerability of concentrated populations to new diseases like AIDS and ebola (and the potential resurgence of old ones, as a result of climate change); the decline of ecological resilience worldwide because of the many forms of environmental damage industrial humanity has caused; and other factors, not least the

persistent preferences of a majority of people who would happily return to the countryside if they could afford to.

The epic challenges facing us in the 21st century make it difficult to avoid the conclusion of the 1990 WorldWatch report, that "long before 2030, the trend towards ever larger cities and an increasing ratio of urban-to-rural dwellers is likely to have reversed." The real question, in fact, is not whether the urban tide will begin to ebb, but when – and how. Will those returning to rural areas in the next century do so willingly, or as ecological refugees, driven by necessity? This question is crucial for the state of the environment. If large numbers of people reinhabit rural areas carelessly, ignorant of the workings of nature and the land, the effects on ecosystems and biodiversity could be devastating – and the experience of ecological refugees in parts of the Third World today shows this clearly. The question, then, is how people can be educated, starting now, in the ways of the country, and the means of reinhabiting, and rejuvenating, rural areas in the next century. – David Orr.



A highly successful greenhouse in Lebens' garten Ecovillage, Germany.

are seeking to develop more co-operative local economies. These Northern-based efforts provide a significant alternative to the urban Western model now being imposed on the less-developed parts of the world. The Global Eco-village Network (GEN) is an exciting organisation that links several of these communities worldwide (see box).

Such models can seem remote and impractical to people living in a typical large urban centre, surrounded by structures that are inherently alienating, and which prevent more ecological and healthier relationships with the world around us. But even in cities, where people have for the most part been separated from the land and from each other, these

corner shop. Half of our spending now goes to only 250 companies, all with a global reach.

Localisation can set in motion a chain reaction of changes in the whole socio-economic system. When the shortening of links between producers and consumers allows communities to see their local economy as a system, and when more is produced within close reach, the smaller-scale methods of production become more benevolent, so that the environment is protected, more jobs are created, and the wealth stays in the community. Community economic initiatives can thus be seen as having a 'multiplier effect'.

Another advantage of human-scale economies is that they tend towards a more equitable distribution of wealth, and are more responsive to the needs of people and the limitations of natural resources. Over time, such initiatives would help foster a return to cultural and biological diversity and long-term sustainability.

Localisation enables shifts at the personal level that help us

The globalisation of culture and information has led to a way of life in which the nearby is treated with contempt. Many people know what is happening in China but not next-door: at the touch of a TV button, modern consumers have access to all the wildlife of Africa, but don't know what birds live in their local park.

rediscover the deep psychological benefits – the joy – of living in a genuine community, being able to depend on those around you for help and support. This is in clear contrast to the values that are the hallmarks of today's fast-paced atomised industrial society. It

is a culture that demands mobility, flexibility and independence. It induces a fear of growing old,

of being vulnerable and dependent. A world-wide competitive economy is responsible for robbing us of time. At the same time as we are pulled away from community and a connection to the natural world, those relationships are also speeded up and time becomes scarce – indeed it becomes a product for which people are willing to pay vast amounts of money. Smaller scale necessarily involves a slowing down. The globalisation of culture and information has led to a way of life in which the nearby is treated with contempt. Many people know what is happening in China but not next-door: at the touch of a TV button, modern consumers have access to all the wildlife of

Africa, but don't know what birds live in their local park.

Paradoxically, a trend toward smaller-scale political and economic units can actually help us to develop a broader world-view. Instead of narrowing our vision, an intimate connection to community and place encourages an understanding of interdependence. A sense of place means helping ourselves and our children to see the *living environment around us*: reconnecting with the sources of our food – perhaps even growing some of our own – learning to recognise the cycles of seasons, the characteristics of the flora and fauna. Feeling yourself a part of a continuum called life provides a sense of security that in turn nurtures openness and curiosity and an acceptance of difference. Ultimately, we are talking about the *spiritual* re-awakening that comes from making a connection to others and to nature. □

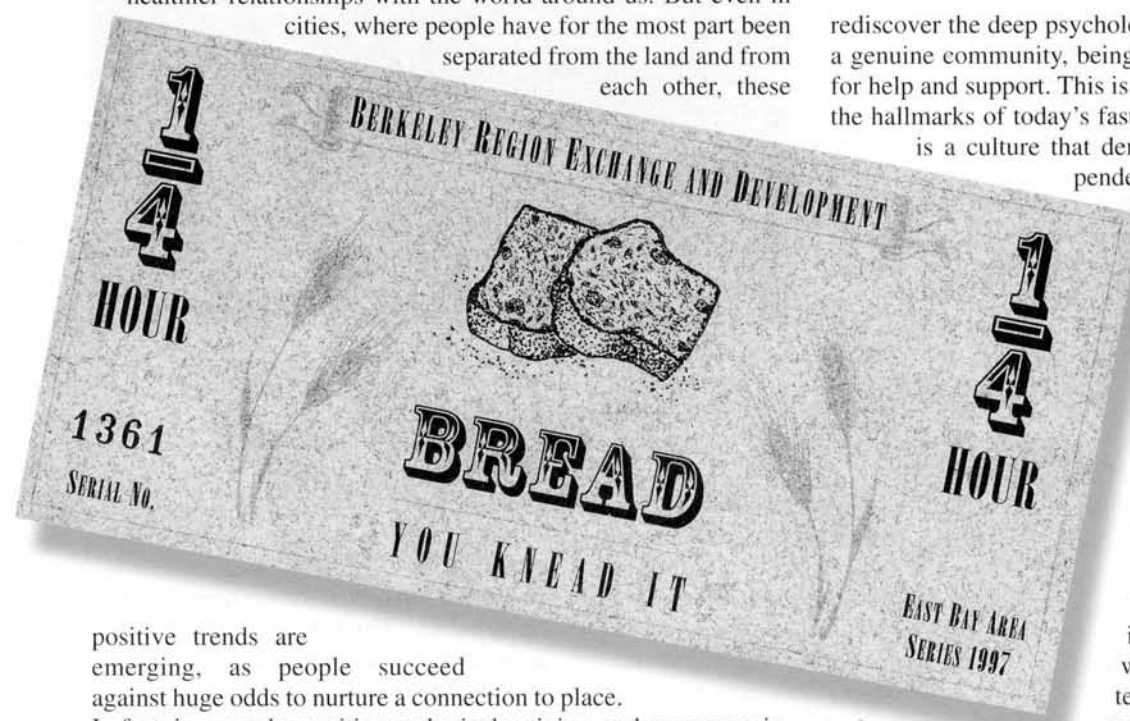
positive trends are emerging, as people succeed against huge odds to nurture a connection to place.

In fact, in many large cities ecological activism and awareness is stronger than in smaller towns and villages, since people are more aware of what they have lost.

What are some of the benefits?

The benefits of localisation are many and varied. One of the most exciting things about the process is that it is possible to combine the good of the environment and the good of your neighbour with your own self-interest. It is truly a win-win strategy, and it emerges again and again as communities sit down to look at what is in their interest. Where does the money go when you buy things produced in the local economy? – *back to your community*. At present, most of the money spent in the developed world disappears into the pockets of corporate shareholders. In the UK, for example, banks in poor areas reinvest only £1 in £8 of savings deposited by local residents. Supermarkets provide one job for every £250,000 spent, compared to one job for every £50,000 spent in a

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The Post-Corporate World

Starting his career at Harvard business school, David Korten held conventional views on Aid, Development and 'the human potential'. Years of experience in the field, however, led him to question some of the most basic assumptions underlying development theory. **By David Korten.**

Today's world operates on the back of an almost universal, unspoken assumption. It goes something like this:

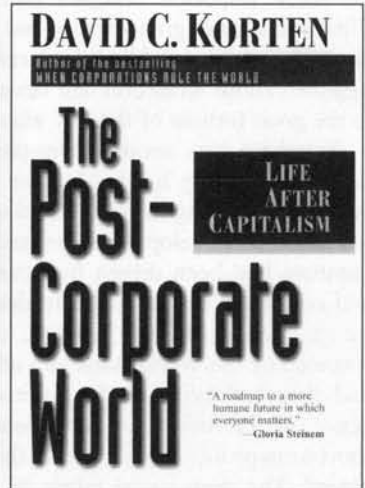
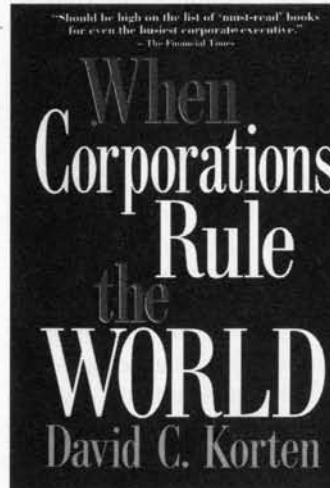
Like it or not – with the death of socialism – the forces of economic globalisation are immutable and irreversible. There is no alternative. We must deepen our commitments to consumerism, free trade and economic growth even as we endure the current trials of global capitalism's creative destruction. In the end we will be rewarded with universal peace and prosperity.

For those of us who believe there is more to life than making money and shopping in megamalls for products we didn't know we needed until we saw them advertised on television, this assumption is a demeaning and dehumanising counsel of despair and resignation. Yet given the power and seeming support enjoyed by the institutions involved, globalisation's message of inevitability – if not its promise of universal freedom and prosperity – seems all too credible. Too often, those of us who long for alternatives feel powerless and alone. In fact, however, we are not alone. There are hundreds of millions of us – possibly billions – a part of the evidence I see that our species is in the midst of profound awakening to a new appreciation of what it means to be truly human.

Indeed, millions of people, unsung heroes of a new era, are already hard at work constructing the building blocks of a post-corporate-post-capitalist civilisation. They are demonstrating alternatives far more attractive and viable than socialism or the failed economic models of the former Soviet Union. The most promising alternatives centre on applying the familiar principles of democratic governance and market economics to create societies that function in service to life – societies that treat money as a facilitator, not the purpose, of our economic lives.

These determined pioneers are creating new political parties and movements, strengthening their communities, deepening their spiritual practice, discovering the joyous liberation of voluntary simplicity, building networks of locally rooted businesses, certifying socially and environmentally responsible products, restoring forests and watersheds, promoting public transportation and defining urban growth boundaries, serving as peacemakers between hostile groups, advancing organic agriculture, practising holistic health, directing their investments to socially responsible businesses, organising recycling campaigns, and demanding that trade agreements protect the rights of people and the environment.

They are present in every country. They come from every race, class, religion and ethnic group. They include landless and illiterate peasants but also corporate executives; they include union members, shareholders, ranchers, teachers, housewives, small-



business owners, farmers, local government officials, inner-city kids, loggers, wealthy intellectuals and reformed gang leaders. Fed up with the failures of elitist leadership and distant bureaucratic forms of leadership in which people take direct responsibility for the health and well-being of themselves, their families, their communities and the planet. They are demonstrating through action that the mantra's message of inevitability is as false as its promise of universal freedom and prosperity. They – we – are creating a new story of the human and planetary future.

It has taken me a very long time to arrive at my current view of how the world works (or doesn't). Back in 1959, when I was completing my senior year of college, I was preparing to return to the town of my birth to succeed my father, as he had succeeded his father, as the head of our family business selling musical instruments and kitchen appliances. My political values were conservative. Aside from a journey of a few days in Canada and a border crossing of a few hours into Mexico with my parents as a child, I had never ventured outside the United States.

Then for reasons I do not even recall – perhaps related to my concern that communism posed a threat to the American way of life – I chanced to take a course on modern revolutions from history professor Robert North. I became immersed in a simple, widely shared story that changed my life in a most dramatic way. The story, which you might call the classic American development story of the cold war era, went like this:

Our world is divided into a small group of highly-developed Western industrial countries and a much larger group of countries whose people are deprived on the benefits of development due to a lack of capital and technical and managerial skills. Their resulting poverty makes them easy targets for the false promises of revolutionaries. For reasons of self-interest, as well as humanitarianism, we must reach out to bring the benefits of American society to the poor countries of the world by providing them with the capital and expertise needed to spur their economic growth.

As a result of this story, I decided to become a development worker and devote my life to ending the poverty of world's underdeveloped countries. I spent some 30 years on this path, in places as far from my hometown as Ethiopia, Nicaragua, the Philippines and Indonesia, the countries in which I've lived most of my adult

years. I now look back on that experience as my real education – a time during which I became aware of the stark difference between the myth and the reality of the development story that had drawn me to my life's vocation.

In each of these countries, plus the dozens more I've visited, I witnessed the 'development' promised by the classical development story. Year by year, there were more international airports with well-stocked duty free shops, freeways crowded with new cars leading from the airports to elegant five-star hotels located near bustling air-conditioned shopping malls where one could buy the latest imported designer labels and consumer electronics. There were more grand homes and ever larger numbers of modest but comfortable middle class residences with modern conveniences. Those structures are development's facade; monuments to the good fortune of the few whom development has favoured.

Yet there was another ever-present reality that the classical development story had not foreseen. Behind the façade, millions of people were living in dehumanising destitution – many as a consequence of development's intrusion into their lives. Shocking numbers had been driven by development projects from homes and communities that had afforded them a modest but dignified living. Dams, forestry projects, and many other interventions financed by the World Bank and other foreign assistance agencies had disrupted their lives for purposes that benefited those already better off. Environments were being stripped bare of life for the short-term profits of the rich and the short-term survival of the displaced. The deep social fabric of once-rich cultures were being ripped apart. Although a few were enjoying new material comforts, the lives of many more were deteriorating. Nearly everywhere, it seemed, inequality was increasing. It was ever harder to escape the pollution, even in the gated compounds of the rich. Something was very wrong.

My unease turned to horror when I turned my gaze back to the land of my birth and realised that similar processes of social and environmental deterioration had become well established in the United States and other Western industrial countries. Development seemed to be turning us all into what we now call Third World countries. The supporting structures of the story that had guided my life began to disintegrate.

A new story began to emerge. In this new story, the solutions that had defined much of my life as development worker turned out to be a source of terrible problems. I soon found myself a leading narrator of a new development story – a story that largely explains the social and environmental crisis spreading throughout both industrial and pre-industrial societies.

My book, *When Corporations Rule the World* told this new story as I had come to understand it:

Our relentless pursuit of economic growth is accelerating the breakdown of the planet's life support systems, intensifying resource competition, widening the gap between rich and poor, and undermining the values and relationships of family and community. The growing concentration of power in global corporations and financial institutions is stripping governments – democratic and otherwise – of their ability to set economic, social and environmental priorities in the larger common interest.

Driven by a single-minded dedication to generating ever greater profits for the benefit of their investors, global corporations and financial institutions have turned their economic power into political power. They now dominate the decision processes of governments and are rewriting the rules of world commerce through international trade and investment agreements to allow themselves to expand their profits without regard to the social and environmental consequences borne by the larger society. Continuing with business as usual will almost certainly lead to economic, social and environmental collapse.

The timing of my book's release coincided with a receptive moment, a turning point in public consciousness. Corporate

excesses were becoming every more obvious and a significant segment of the population was becoming fed up. A number of citizen groups were beginning to take on corporate power and the related issues of international corporate-rights treaties disguised as trade agreements. Though the corporate-controlled press took little note of these initiatives, a variety of books and articles began circulating, mainly from small and alternative presses, and conferences, teach-ins and rallies were being held with support from union, religious, environmental, women's, peace, consumer rights and other citizen groups.

It became evident to me that to do more than merely slow the consolidation of power by the corporate juggernaut, it is necessary to create broad public awareness of attractive alternatives. I argue now that the problem is not the market as such but more specifically global capitalism, which is to a healthy market economy what cancer is to a healthy body. Cancer occurs when genetic damage causes a cell to forget that it is part of a larger body, the healthy function of which is essential to its own survival. The cell begins to seek its own growth without regard to the consequences for the whole, and ultimately destroys the body that feeds it. As I learned more about the course of cancer's development within the body, I came to realise that the reference to global capitalism as a cancer is less a metaphor than a clinical diagnosis of a pathology to which market economies are prone in the absence of adequate citizen and governmental oversight. Our hope for the future is to restore the health of our democracies and market economies by purging them of the pathology.

When dealing with a cancer of the body, containment is rarely an adequate strategy. To become healthy, one needs a curative regime designed to remove or kill the defective cells. Some combination of surgical removal with measures to weaken the cancer cells and strengthen the body's natural defences is likely to be appropriate. There is a strong parallel to the task now before us. Curing the capitalist cancer to restore democracy, the market and our human rights and freedoms will require virtually eliminating the institution of the limited-liability for-profit public corporation as we know it to create a post-corporate world through actions such as the following:

- End the legal fiction that corporations are entitled to the rights of persons and exclude corporations from political participation;
- Implement serious political campaign reform to reduce the influence of money on politics;
- Eliminate corporate welfare by eliminating direct subsidies and recovering other externalised costs through fees and taxes;
- Implement mechanisms to regulate international corporations and finance; and
- Use fiscal and regulatory policy to make financial speculation unprofitable and to give an economic advantage to human-scale, stakeholder-owned enterprises.

I have no illusions that removal of the capitalist cancer will be easily accomplished. Rarely is cancer in any of its manifestations easily cured. On the other hand, I see no realistic prospect for the amicable co-existence of life and the global economy. They represent ways of being and valuing as antithetical to one another as the coexistence of cancer cells and healthy cells. Any seeming accommodation between them is inherently unstable and most likely to be resolved in favour of the cancer. On a small and crowded planet with a finite life-support system, our choice as a species is basically between life after capitalism and severe global-scale social and environmental collapse.□

David Korten, a former faculty member of the Harvard Business School, is founder and president of the People-Centered Development Forum and board chair of the Positive Futures Network. His previous book *When Corporations Rule the World* sold over 50,000 copies

Grounding the Corporation

Here, the author presents an argument for restructuring the legal framework in which corporations exist, in such a way as to render an offending corporation directly accountable for its crimes against humanity and the natural world. **By Kalle Lasn.**

A corporation has no heart, no soul, no morals. It cannot feel pain. You cannot argue with it. That's because a corporation is not a living thing, but a process – an efficient way of generating revenue. It takes energy from outside (capital, labour, raw materials) and transforms it in various ways. In order to continue 'living' it needs to meet only one condition: its income must equal its expenditures over the long term. As long as it does that, it can exist indefinitely.

When a corporation hurts people or damages the environment, it will feel no sorrow or remorse because it is *intrinsically unable to do so*. (It may sometimes apologise, but that's not remorse – that's public relations.) Buddhist scholar David Loy of Tokyo's Bunkyo University puts it this way: "A corporation cannot laugh or cry; it cannot enjoy the world or suffer with it. Most of all a corporation cannot *love*." That's because corporations are legal fictions. Their 'bodies' are just judicial constructs, and that, according to Loy, is why they are so dangerous. "They are essentially ungrounded to the Earth and its creatures, to the pleasures and responsibilities that derive from being manifestations of the Earth." Corporations are in the most literal and chilling sense 'dispassionate.'

We demonise corporations for their unwavering pursuit of growth, power and wealth. Yet, they are simply carrying out genetic orders. That's exactly what corporations were designed – by us – to do. Trying to rehabilitate a corporation, urging it to behave responsibly, is a fool's game. The only way to change the behaviour of a corporation is to recode it; rewrite its charter; reprogramme it. When a corporation like General Electric, Exxon, Union Carbide or Philip Morris breaks the law, causes an environmental catastrophe or otherwise undermines the public interest, the usual result is that nothing very much happens. The corporation may be forced to pay a fine, revamp its safety procedures, face a boycott. At worst – and this is very rare – it is forced into bankruptcy. The shareholders lose money and the employees lose their jobs. Usually, though, the shareholders move on to other investments, and company executives find work elsewhere. In fact, it's often the public and low-level employees who suffer the most when a corporation dies.

What if there was another, more serious, potential outcome, one that would lay responsibility where it belongs? What if each shareholder was deemed personally responsible and liable for 'collateral damage' to bystanders, or harm to the environment? Why shouldn't it be so? If you're a shareholder, a part-owner of a corporation, and you reap the rewards when the going is good, why shouldn't you be held responsible for that company when it becomes criminally liable?

If we rewrote the rules of incorporation so that every shareholder assumed partial liability, financial markets would immediately undergo dramatic change. Fewer shares would be traded. Instead of simply choosing the biggest cash cows, potential shareholders would carefully investigate the backgrounds of the com-

panies they were about to sink their money into. They would think twice about buying shares in Philip Morris Inc. or R. J. Reynolds or Monsanto. Too risky. They would choose resource companies with good environmental records. They would stay away from multinationals that use child workers or break labour laws overseas. In other words, *the shareholders would be grounded* – forced to care and take responsibility. Stock markets would cease to be gambling casinos. Our whole business culture would heave.

We made an enormous mistake when we let shareholders off the legal-liability hook. But it's not too late to rectify that mistake. We, the people, created the corporate charter and the rules for buying stocks and shares, and now, we, the people, must change those rules.

The same approach can be extended to corporate crime. When a human being commits a major crime – gets caught trafficking cocaine or robbing a store – society metes out harsh justice. The felon automatically loses his political rights (to vote and hold office) and if the crime is serious enough, he does hard time. When he gets out of jail he's marked for life. Employers won't hire him. People who know his background won't trust him. He cannot travel freely across borders. He is a marked man.

Compare that to the worst that might happen to a corporation caught flagrantly breaking the law. The public is outraged. The CEO loses his job. There's a shake-up in the boardroom. The company faces a class-action suit and pays out a lot of money. But, at the end of the day, the executives of a criminal corporation really don't have so much to worry about. Their chances of ending up in jail are next to zero. And the corporation itself loses none of its political or legal rights to continue doing business, lobby congress or participate in elections. The corporation hires a new CEO, settles the suit, launches a PR campaign to regain public confidence. This is often seen as just the price of doing business. That's why the executives of rogue corporations like Philip Morris can keep lying to us, hiding information and otherwise flouting the law with impunity year after year after year. There is no penalty they fear.

We must find ways to instil that fear. We must enact tough new corporate criminal liability laws. Repeat offenders should be barred for a specified number of years from selling things to the government. They should be ineligible to hold government contracts and licenses for television stations. They should not be allowed to finance political campaigns or lobby congress, and they should forfeit their legal rights just as individual criminals do.

We must rewrite the rules of incorporation in such a way that a company caught repeatedly and wilfully dumping toxic wastes, damaging watersheds, violating anti-pollution laws, harming employees, customers or the people living near its factories, engaging in price fixing, defrauding its customers, or keeping vital information secret, *automatically* has its charter revoked, its assets sold off and the money funnelled into a superfund for its victims.

In America, the home of probably the world's biggest, most powerful corporations, there are historical precedents for this kind of action, though you have to go back a century to find them. In



System Error-Type 1945 (progress)



Adbusters specialise in producing 'subverts' designed to "twist advertising clichés around, judo-like to shock consumers into critical thought".

1884, the people of New York City, citing a wilful pattern of abuse, asked their attorney general to revoke the charter of the Standard Oil Trust of New York (and they succeeded). The state of Pennsylvania revoked the charters of a number of banks that were found to be operating against the public interest. Michigan, Ohio and New York revoked the charters of oil, sugar and whiskey trusts. In 1890, the highest court in New York State revoked the charter of the North River Sugar Refining Corporation with these words: "The judgement sought against the defendant is one of corporate death. The state, which created, asks us to destroy, and the penalty invoked represents the extreme rigor of the law. The life of a corporation is, indeed, less than that of the humblest citizen."

Warnings about corporate consolidation have also come out of more recent US court decisions. In 1976, US Supreme Court Justices White, Brennan and Marshall noted that "the special status of corporations has placed them in a position to control a vast amount of economic power by which they may, if not regulated, dominate not only the economy but also the very heart of our democracy, the electoral process."

Today, after 100 years of inaction, American corporate charters are once again being challenged, and these challenges are setting an example for those across the world who understand the need to rein in the power of corporations.

In May 1998, New York Attorney General Dennis Vacco

revoked the charters of the Council for Tobacco Research and the Tobacco Institute, on the grounds that they are tobacco-funded fronts that serve "as propaganda arms of the industry".

In Alabama, the only state in the US where a private citizen can file a legal petition to dissolve a corporation, Judge William Wynn did just that. In June 1998, acting as a private citizen (and comparing his actions to making a citizen's arrest), Wynn named five tobacco companies that, he asserted, have broken state child-abuse laws and should be shut down. "The grease has been hot for a year now, and it's time to put the chicken in," he said.

On September 10, 1998, in what may be the largest corporate charter revocation effort in a century, 30 individuals and organisations (including the National Organisation for Women, Rainforest Action Network and National Lawyers' Guild) petitioned California Attorney General Dan Lungren to pull the plug on Unocal Corporation, which, they claim, engages in environmental devastation, unethical treatment of workers and gross human

rights violations. And on Tuesday, November 3, 1998, in the fiercely political university town of Arcata, California, citizens, in the first ballot initiative of its kind in US history, voted 3,139 to 2,056 to "ensure democratic control of all corporations conducting business within the city." Now, in town hall meetings and an ongoing city-wide conversation, the people of Arcata will decide what role they want corporations to play in their community.

The 1886 *Santa Clara County versus Southern Pacific Railroad* decision in the US Supreme Court declared that corporations were "natural persons" under the US constitution. Suddenly, corporations 'came to life' among us, and started enjoying the same rights and freedoms as we, the citizens who created them. One of the ultimate long-term strategies for jammers is to revisit that judgement, have it overturned, and ensure that the corporate 'I' will never again rise up in our society.

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It will be a long and vicious battle for the soul of America and the outcome is far from clear. In the next century, will America evolve toward a radical democracy or an even more entrenched corporate state? And what example will it set to the rest of the corporate world? Will more and more of the world economy be "centrally planned by global megacorporations? Will we live and work on Planet Earth, or Planet Inc.? The only way to avoid this latter, nightmare scenario is for people to start thinking and acting as sovereign, empowered citizens.

One way to jumpstart this 'vital process' is to make an example of one of the world's biggest corporate criminals – Philip Morris Inc. Launch a TV campaign that tells the horrifying truth about that company's long criminal record. Organise a massive boycott of its food products, collect a mind-boggling number of petition signatures, keep applying the pressure and simply never let up until the attorney general of the state of New York revokes the company's charter.□

Kalle Lasn is editor and publisher of *Adbusters* Magazine. He was previously a documentary film maker who received 18 international film awards for his efforts.

Guilty Until Proven Innocent

By Jerry Mander

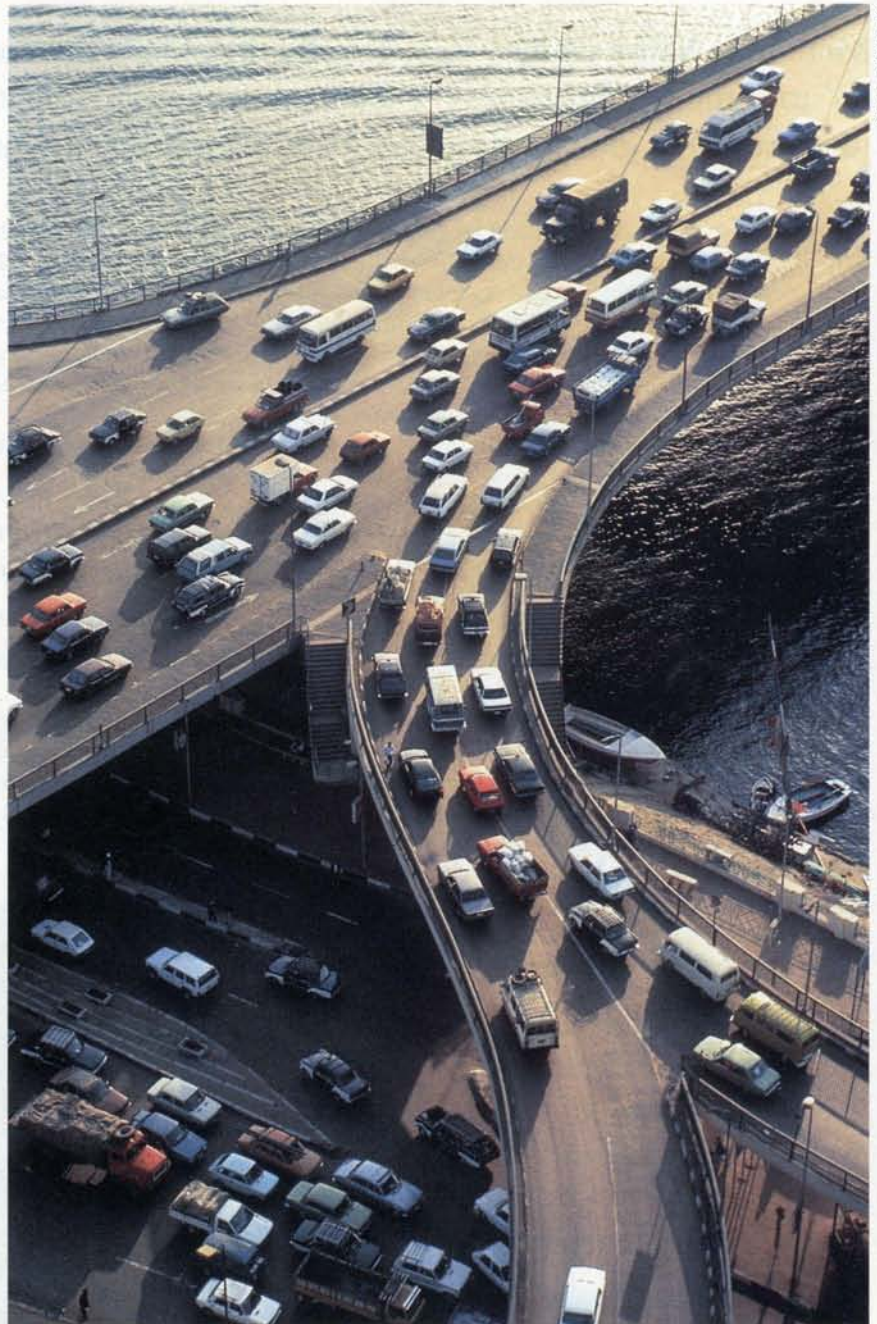
I wonder: what if 'guilty until proven innocent' had been society's rule when cars were invented? At the turn of the century the car was portrayed as a harbinger of personal freedom and democracy: private transportation that was fast, clean (no mud or manure) and independent. But what if the public had also known about the negative properties of the car? What would have been the outcome?

What if the public had been told that the car would bring with it the modern concrete city? Or that the car would contribute to cancer causing air pollution, to noise, to solid waste problems, and to the rapid depletion of the world's resources? What if the public had been made aware that a nation of private car owners would require a virtual repaving of the entire landscape, at public cost, so that eventually automobile's sounds would be heard in wilderness areas? What if it had been realised that the private car would only be manufactured by a small number of giant corporations, leading to their acquiring tremendous economic and political power? That these corporations would create a new mode of mass production – the assembly line – which in turn

What if the public had been forewarned of the unprecedented need for oil that the private car would create? What if the world had known that because of cars, horrible wars would be fought over oil supplies?

would cause worker alienation, injury, drug abuse and alcoholism? That these corporations might conspire to eliminate other means of popular transportation, including trains? That the automobile would facilitate suburban growth and its impact on landscapes? What if there had been an appreciation of the physiological results of the privatisation of travel and the modern experience of isolation? What if the public had been forewarned of the unprecedented need for oil that the private car would create? What if the world had known that because of cars, horrible wars would be fought over oil supplies? Would a public if informed of these factors have decided to proceed with developing the private automobile? Would the public have thought it a good thing? If so, would there have been greater efforts to control the over-building of roads, or to protect alternative transit forms? How might the auto's impact on society have been modified as a result?

I really cannot guess whether a public so well informed, and



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given the chance to vote, would have voted against cars. Perhaps not. But the public was not so informed. There was never any vote, nor any real debate. And now, only three generations later, we live in a world utterly made over to accommodate the demands and domination of one technology.□

Jerry Mander is a senior fellow at the public media centre, California, and the author of *Four arguments for the elimination of television* and *In The Absence of The Sacred*, from which this article has been extracted.

Reversing Globalisation: What Gandhi Can Teach Us

More than half a century ago, Gandhi developed the concepts of 'Swadeshi' and 'Satyagraha' to fight the violence of a colonial economy. Today, those of us fighting the new colonialism that is globalisation can learn from his tactics and beliefs. **By Dr Vandana Shiva.**

Central to Gandhi's movement for freedom from colonialism were the concepts of *Swadeshi*, *Swaraj* and *Satyagraha*:

Swadeshi is the spirit of regeneration – a method of creative reconstruction in periods of dependency and colonisation. According to the Swadeshi philosophy, everybody possesses both materially and morally what they need to design their own society and economy and free themselves of oppressive structures. *Economic freedom*, or Swadeshi, is based on indigenous development rather than externally controlled development. Ordinary people, by reclaiming production and consumption for themselves, can break the chains of colonialism. Swadeshi, for Gandhi, was based on building on a community's existing resources, skills and institutions, and transforming them where they were inadequate. Imposed resources, institutions and structures are not only non-sustainable, but enslave people to their needs. Swadeshi has many echoes in later economic models, such as Schumacher's *Small Is Beautiful*, and is the basis of many local alternatives which are being fought for today. Swadeshi is the basis of economic freedom, and without economic freedom there can be no political freedom, or self-governance and self-rule.

In periods of injustice and external domination, when people are denied economic and political freedom, reclaiming freedom requires peaceful non co-operation with unjust laws and regimes. This peaceful non co-operation was named by Gand-

When people are denied economic and political freedom, reclaiming freedom requires peaceful non co-operation with unjust laws and regimes.

hi '**Satyagraha**'. Literally, Satyagraha means "the struggle for truth". According to Gandhi, no tyranny can enslave a people that considers it immoral to obey its unjust laws. As he stated in *Hindi Swaraj*:

"As long as the superstition that people should obey unjust laws exists, so long will slavery exist. And a non-violent resister alone can remove such a superstition."

Satyagraha is also the key to self-rule or **Swaraj**. Indeed, it is often the only path to that goal.

Mainstream Indian magazines and newspapers sometimes describe Swadeshi as a form of insular, isolationist xenophobia, but this is a serious distortion of Gandhi's ideas. In fact, it is *globalisation* which is xenophobic, because it extinguishes all diversi-

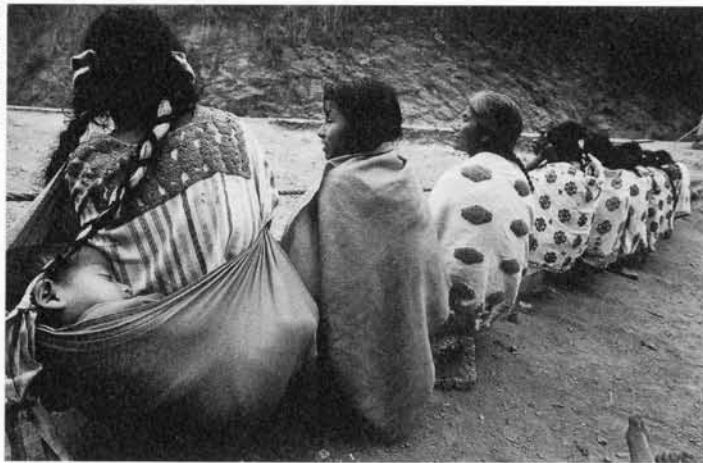
Mainstream Indian newspapers sometimes describe Swadeshi as a form of insular, isolationist xenophobia, but this is a serious distortion of Gandhi's ideas. In fact, it is globalisation which is xenophobic, because it extinguishes all diversity.

ty. It is a project of total global control, arising from a fear of everything that is alive, free and autonomous. Globalisation also breeds xenophobia itself, as I showed in my previous article. In many ways, genocide and ethnic cleansing are the gifts of a global economic integration which robs people of their basic securities and replaces them with hatred and suspicion of outsiders.



Children reforesting the hills surrounding their village in Sri Lanka.

STILL PICTURES



Zapatista women doing a 24 hour turnover to protect their community from the army and paramilitary groups in Mexico.

Swadeshi, in contrast, is a self-sufficient, secure and confident system. A self-organising system knows what it has to import and export in order to maintain and renew itself. It does not fear outsiders, or despise alternative ways of life, because it is secure in its own ability to provide for its people. At the political and cultural level, it is this freedom to self-organise that Gandhi saw as the basis of interaction between different societies and cultures. "I want the cultures of all lands to be blown about as freely as possible," he said, "but I refuse to be blown off my feet by any."

Towards an Ahimsic Artha Vyavastha (a Non-Violent Economic Order)

Gandhi made it very clear that non-violence is not just the absence of violence. It is also an active engagement in compassion. **Ahimsa**, or non-violence, is the basis of many faiths that have emerged on Indian soil. Translated into economics, Ahimsa implies that our systems of production, trade and consumption should be small and controllable, not dominant and destructive of either societies, the environment or other life forms. In the *Ishopanishad* it is said:

"The Universe is the creation of the Supreme Power meant for the benefits of (all) creation. Each individual life form must, therefore, learn to enjoy its benefits by farming a part of the system in close relation with other species. Let not any one species encroach upon others' rights."

Whenever we engage in consumption or production patterns which take more than we need, we are engaging in violence. In other words, massive-scale, non-sustainable consumption and production constitute a violent economic order. According to the *Ishopanishad*:

"A selfish man, over-utilising the resources of nature to satisfy his own ever-increasing needs, is nothing but a thief, because using resources beyond one's needs results in the utilisation of resources to which others have a right."

This relationship between restraint in resource-use and social justice was also the core element of Gandhi's political

In the case of the Indian village, an age-old culture is hidden under an encrustment of crudeness. Take away the encrustation, remove his chronic poverty and his illiteracy and you will find the finest specimen of what a cultured, cultivated, free citizen should be. — *M. Gandhi.*

philosophy, and he made it clear, in one of his most famous quotes that "The Earth provides enough for everyone's need, but not for everyone's greed." Not taking more than you need ensures that enough resources are left in the ecosystem for other species, and the maintenance of essential ecological processes. It also ensures that enough resources are left for the diverse livelihoods of different groups of people so that they can derive their sustenance and meet their needs in their own ways.

Diversity and pluralism are vital characteristics of an Ahimsa, or non-violent, economic order. If the criteria of not encroaching on others' rights is fully followed, diverse species will survive and diverse cultures, trades and occupations will flourish. Diversity is, therefore, the litmus test for a non-violent society, and will reflect and nourish the sane, small-scale and peaceful society we should all wish to see. □

Vandana Shiva is the director of the Research Foundation for Science, Technology and Ecology, India.

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The Resurgence of Natural Medicine

A rise in most forms of degenerative and infectious diseases, coupled with a dwindling faith in today's increasingly commercialised medicine, is leading to a resurgence of popular interest in more nature-based medicines. **By Martin J. Walker.**

There was a time, during the Second World War, when the British people were deprived of pharmaceutical medicines. Faced with organising their own health care without the pressures of commercial vested interests, both government and people learned an important (although, it transpired, quickly forgotten) lesson about what the move towards commercialism and away from community could mean in relation to medicine.

Within a short time after the outbreak of the Second World War, Britain was without imports of many vital pharmaceuticals that had formerly come from Japan, Germany and the Far East. Faced with the abrupt curtailment of supplies and the realisation that they had no plans for a sustainable approach to medicines, government scientists, doctors and other health policy makers reversed their previously dogged insistence that only multinationally organised

scientific medicine could aid the health of the people. Despite previous attempts, through various Medicines Acts, to stop herbalists from practising and to outlaw their medicines, the government set about restoring the manufacture and distribution of herbal medicines.

The first wartime government set up systematic research into the cultivation and medicinal use of herbs. By 1940, women's voluntary organisations had been drawn into a national campaign to gather wild herbs. Up and down the country, County Herb Committees were organised to oversee the gathering, drying, distillation and distribution of medicinal herbs. Lay people were given brief locally-based training in how to recognise herbs, store and dry them. Farmers were given subsidies to farm certain naturally hard-to-find herbs. By 1943, every county had its herb committee and during the five years of the second world war, over 750 tons of dried herbs were gathered and turned into medicines.

Fifty years on from that blip in the development of scientific medicine, European natural medicine - that based on naturally-occurring plants rather than patented artificial chemicals - is buffeted by two quite different prevailing winds. On the one hand, as a consequence of both deregulation and a gathering distrust of medical professionals and their vested interests, natural medicine is booming. An increasing number of trained alternative practitioners have brought natural medicine within the reach of many lay communities.

It seems unlikely that anything can stop a paradigm shift within medicine.

On the other hand, the last ten years has been characterised by establishment attacks on practitioners of natural medicine, mainly in respect of their qualifications and on companies producing over-the-counter natural products. New international regulatory mechanisms within the EU and GATT have heavily favoured the centralised medical profession and the pharmaceutical companies. With support from the governments of developed countries, groups of indigenous people in South America and Africa have had their native plants stolen from them and patented by multinational medical bio-tech companies.

Because of the often successful and continuous campaign fought by orthodox medicine and pharmaceutical companies against natural medicine, even the most progressive thinkers often fail to consider medicine in any discourse about globalism and localism. Yet few models could exemplify better the comparison between global high technology production and sustainable local production than that between pharmaceutical and natural medicine.

The campaigns waged by professional medicine and the pharmaceutical companies have stressed the idea that natural medicine



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A Kenyah woman picking Tuba Akar, which is used to cure fevers.



is unsafe, backward, medieval and somehow inevitably linked not only with an uncomprehending view of science but also with magic, charlatanry and quackery.

The facts tell a different story. It is worth noting that there were over one hundred thousand deaths last year in America from adverse reactions to drugs and damage from orthodox medical practices. The massive cost, unregulated profitability, difficulties in specialised training, lack of stringent scientific regulation and unsustainability make pharmaceutical medicine disruptive of community and actually antagonistic to preventative health.

The issue of sustainable preventative medicine is a vital contemporary issue. In the developed world, the question of sustainable medicine is intimately related to the debate about the Nationalised Health Service and lowering the drugs bill. As pharmaceutical companies plunder socialised medical systems, growing numbers of therapies are put beyond the reach of the less well off. Increasingly, growing numbers of people are losing faith in the medical profession's cavalier prescription of chemical treatments for every condition. Multinational corporatism, industrial science and professionalisation are, however, such powerfully undemocratic forces that natural therapies cannot be obtained within the NHS and people who want them have to grow used to

waving goodbye to the financial contribution which they have made to the NHS all their lives.

Despite its exile from the NHS and other systems of medicine, it seems unlikely that anything can stop a paradigm shift within medicine. As we move out of industrial society, natural medicine appears increasingly like an idea whose time has come. The therapeutic approach of holistic practitioners to the individual seems to fit more readily into a view of the human identity which recognises the minutiae of psychosexual, physiological and historical differences in a way that medicine and industrial society do not.

Non-toxic natural medicine also fits with the recurrent and prevailing view that many of us would like to live a more risk-free life, especially where those risks are manufactured by chemical companies. But perhaps the greatest failure of orthodox medicine has been its inability,

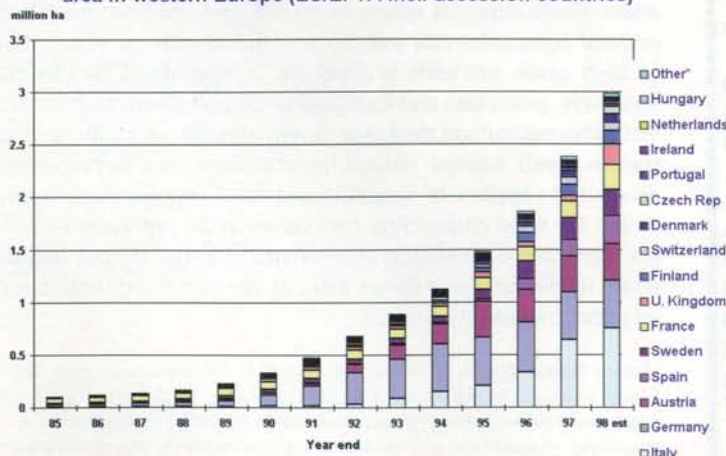
because of pressures of profit, to be involved in preventative health. Even the conquest of infectious diseases in developed societies was achieved, not by medicine *per se*, but primarily by public health and hygiene professionals. Natural medicine, on the other hand, has at its heart preventative considerations which take into account people's living conditions and seek to improve the quality of life and the general health of citizens. Most forms of natural medicine try to look after the body *before* degenerative illnesses set in, so lessening the need for high tech, crisis therapies in circumstances of terminal illness.

Most forms of natural medicine try to look after the body before degenerative illnesses set in, so lessening the need for high tech, crisis therapies in circumstances of terminal illness.

The understanding of natural medical practitioners about food and nutrition throws them into head-on collision with the industrial food producers who they consider have stripped much food of its nutrition. Orthodox medicine and the pharmaceutical companies have historically been too deeply enmeshed in the food industry to promote organic foods, grown locally and harvested for local markets. Natural medicine practitioners, on the other hand, see food not only as nourishing and entertaining, but also as having positive health giving powers. Many chronic conditions such as eczema and migraines, which are ultimately only put off with orthodox treatment, can be ameliorated by serious medical consideration of the diet of a sufferer.

One of the most persuasive factors in favour of natural medicine is, however, not to do with its effectivity but with its cost. Chelation therapy, which involves the introduction to the blood supply of a mixture of vitamins and minerals, is much cheaper but as effective as the orthodox alternative of heart by-pass operations. The use of intravenous magnesium in post cardiac arrest cases has historically proved far more effective in stopping a second attack than the massively expensive use of pharmaceutical preparations. The use of herbs, vitamins, minerals, food supplements and such things as enzyme potentiators can

Certified and policy-supported organic and in-conversion land area in western Europe (EU/EFTA incl. accession countries)



A Return to Alternative Medicine

About fifteen years ago, reports suggesting a growing use of various types of non-orthodox healthcare were dismissed by the British Medical Association's board of science as 'a passing fashion'. But time proved them wrong.

The British Medical Association noted in 1993 that 75 per cent of GPs had referred a patient to an alternative therapist at some time and 'that the huge interest in unconventional treatments was unlikely to be reversed'. A survey published in the *Journal of Family Practice* concluded that in 1994, 93 per cent of all GPs and 70 per cent of hospital doctors had suggested a referral to an alternative treatment at least once. According to the Sheffield Centre for Health and Related Research, 40 per cent of GP partnerships in England provide access to some form of complementary therapy for their NHS patients. BUPA, the leading private healthcare insurer in the UK now covers Acupuncture, Homeopathy, Chiropractic and

Osteopathy in the UK. And a study presented to the Department of Health counted 39,817 complementary practitioners, plus 3,715 registered health professionals in 1997.

Interest in alternative medicine, in other words, is rocketing. An article in the current issue of the *Journal of the Royal Society of Medicine* suggests that a third of Europeans have seen a complementary therapist or used such remedies in any one year. For example, 9.1 per cent of the Dutch population attended an alternative therapist or doctor in 1985. Five years later, this figure had increased to 15.7 per cent. In France the use of homeopathy rose from 16 per cent of the population to 36 per cent ten years later. In the UK there are about 750,000 consultations with homeopathic doctors alone.

In the United States more visits are made to providers of unconventional therapy (629 million) than to all US primary care

physicians (386 million). According to David Eisenberg et al. 'expenditure on unconventional therapies (\$13.7 billion) for 1997 was comparable to that on all hospital admissions in the US (\$12.8 billion)'. A recent market report on Complementary Medicines demonstrated that UK retail sales of herbal medicines had risen from £32.5 million in 1993 to £50 in 1998. During the same period, sales of homeopathic medicines went from £16.3 million to £23 million. In 1996 a *Financial Times* report predicted that the market for homeopathic remedies in Britain would grow from £19.7 million to £52.6 million and £72.4 million over next five to ten years. Since 1991, it has been growing steadily at 20 per cent per annum.

These figures are even more important if one considers that almost all of these remedies are less expensive than an equivalent pharmaceutical drug.

— *Stephanie Roth.*

change damaging patterns of inefficient digestion more cheaply and more effectively than pharmaceutical intervention. The use of feverfew, which grows like a weed on waste grounds in the inner cities, would probably alleviate headaches just as effectively as the millions of pounds' worth of over-the-counter patent medicines.

There is also a growing exchange between practitioners of sustainable medicine in the poorer countries of the developing world and practitioners in the North. For example, to help the government

introduce and develop health care systems in Vietnam, Alfredo Embid, who runs the Spanish *Asociación de Medicinas Complementarias*, needs no more than adequate training spaces and translated information about available herbs and nutritional health, to get whole communities involved in their own health care. In London, the AIDS dissident group Continuum, with almost insignificant funding from the EU, has been able to help initiate and manage a programme in the Ukraine which has introduced natural medicine and alternative therapies to people with immune compromised conditions. There are many similar examples.

In poor countries with little infrastructure and a poorly developed professional class, some communities might not see a professional doctor for months on end. Natural medical practitioners in countries like China and South America, building their practice on that of the bar foot doctors who travel around the country on foot, concentrate their resources on education, often by drawings and comic strips, so that preventative and crisis medicine might be made popular and accessible. By comparison, professional medics in the developed world rarely leave their hospitals or surgeries to inquire into the environmental conditions of their patients, and guard their high technology training and their magic assiduously, keeping the lay population ignorant of the simplest self-treatments.

In a world where professional doctors have been de-skilled as healers; where the pharmaceutical companies increasingly offer the promise of synthetic health only to those who can afford it; where environmental illnesses go unquestioned so that pharmaceutical companies can sell drugs to the casualties; where sources of high grade nutrients in food are compromised by chemicals, fertilisers, pesticides and food additives; and where high cost, high tech, pharmaceutical medicine is unrealisable; in all these circumstances, well trained natural practitioners can thrive; growing accessible supplies of vitamins and food supplements; networks within the local community for classes in the preventative healing practices like homeopathy, herbalism, qi gong, shiatsu and nutritional medicine: these things offer us the promise of both community and community health. □

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The New Politics of Community

The two political parties of the future are likely to consist of two opposing factions: those who seek to destroy community and those who seek to protect it. **By Wendell Berry.**

Community is a concept, like humanity or peace, that virtually no one takes the trouble to quarrel with; even its worst enemies praise it. There is almost no product or project that is not being advocated in the name of community improvement. We are told that we, as a community, are better off for the power industry, the defence industry, the communications industry, the transportation industry, the agriculture industry, the food industry, the health industry, the medical industry, the insurance industry, the sports industry, the beauty industry, the entertainment industry, the mining industry, the education industry, the law industry, the government industry and the religion industry. You could look into any one of these industries and find many people, some of them in influential positions, who are certifiably "community spirited".

In fact, however, neither our economy, nor our government, nor our educational system runs on the assumption that community has a value – a value, that is, which *counts* in any practical or powerful way. The values that are assigned to community are emotional and spiritual – "cultural" – which makes it the subject of pieties that are merely vocal. But does community have a value that is practical or economic? Is community necessary? Can "community values" be preserved simply for their own sake? Can people be neighbours, for example, if they do not need each other or help each other? Can there be a harvest festival where there is no harvest? Does economy have spiritual value?

In helping us to confront, understand, and oppose the principles

of the global economy, the old political alignments have become virtually useless. Communists and capitalists are alike in their contempt for country people, country life and country places. They have exploited the countryside with equal greed and disregard. They are alike even in their plea that it is right to damage the present in order to make "a better future".

All these conventional affiliations are now meaningless, useful only to those in a position to profit from public bewilderment.

Moreover, the old opposition of country and city, which was never useful, is now more useless than ever. It is, in fact, damaging to everybody involved, as is the opposition of producers and consumers. These are not differences but divisions that ought not to exist because they are to a considerable extent artificial. The so-called urban economy has been just as hard on urban communities as it has been on rural ones.

All these conventional affiliations are now meaningless, useful only to those in a position to profit from public bewilderment. A new political scheme of opposed parties, however, is beginning to take form. This is essentially a two-party system, and it divides over the fundamental issue of community. One of these parties holds that community has no value; the other holds that it does. One is the party of the global economy; the other I would call sim-

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Apple-pressing at Pippindale organic farm, Sonoma County, California.

ply the party of local community. The global party is large, though not populous, immensely powerful and wealthy, self-aware, purposeful and tightly organised. The community party is only now becoming aware of itself; it is widely scattered, highly diverse, small though potentially numerous, weak though latently powerful, and poor though by no means without resources.

We know pretty well the makeup of the party of the global economy, but who are the members of the party of local community? They are people who take a generous and neighbourly view of self-preservation; they do not believe that they can survive and flourish by the rule of dog eat dog; they do not believe that they can succeed by defeating or destroying or selling or using up everything but themselves. They doubt that good solutions can be produced by violence. They want to preserve the precious things of nature and of human culture and pass them on to their children. They want the world's fields and forests to be productive; they do not want them to be destroyed for the sake of production. They know you cannot be a democrat (small *d*) or a conservationist and at the same time a proponent of the supranational corporate economy. They believe – they know from their experience – that the neighbourhood, the local community, is the proper place and frame of reference for responsible work. They see that no commonwealth or community of interest can be defined by greed. They know that things connect – that farming, for example, is connected to nature, and food to farming, and health to food – and they want to preserve the connections. They know that a healthy local community cannot be replaced by a market or an entertainment industry or an information highway. They know that, contrary to all the unmeaning and unmeant political talk about “job creation”, work ought not to be merely a bone thrown to the otherwise unemployed. They know that work ought to be necessary; it ought to be good; it ought to be satisfying and dignifying to the people who do it, and genuinely useful and pleasing to the people for whom it is done.

The party of local community, then, is a real party with a real platform and an agenda of real and doable work. And it has, we might add, a respectable history in the hundreds of efforts, over several decades, to preserve local nature or local health or to sell local products to local consumers. Now such efforts appear to be coming into their own, attracting interest and energy in a way they have not done before. People are seeing more clearly all the time the connections between conservation and economics. They are seeing that a community's health is largely determined by the way it makes its living.

The natural membership of the community party consists of small farmers, ranchers and market gardeners, worried consumers, owners and employees of small shops, stores, community banks, and other small businesses, self-employed people, religious people, and conservationists. The aims of this party really are only two: the preservation of ecological diversity and integrity, and the renewal, on sound cultural and ecological principles, of local

economies and local communities.

So now we must ask how a sustainable local community (which is to say, a sustainable local economy) might function. I am going to suggest a set of rules that I think such a community would have to follow. And I hasten to say that I do not consider these rules to be predictions; I am not interested in foretelling the future. If these rules have any validity, that is because they apply now.

If the members of a local community want their community to cohere, to flourish, and to last, these are some things they would do:

1. Always ask of any proposed change or innovation: What will this do to our community? How will this affect our common wealth?
2. Always include local nature – the land, the water, the air, the native creatures – within the membership of the community
3. Always ask how local needs might be supplied from local sources, including the mutual help of neighbours.
4. Always supply local needs *first*. (And only then think of exporting their products, first to nearby cities, and then to others.)
5. Understand the unsoundness of the industrial doctrine of “labour saving” if that implies poor work, unemployment, or any kind of pollution or contamination.
6. Develop properly scaled value-adding industries for local products to ensure that the community does not become merely a colony of the national or global economy.
7. Develop small-scale industries and businesses to support the local farm and/or forest economy.
8. Strive to produce as much of the community's own energy as possible.
9. Strive to increase earnings (in whatever form) within the community and decrease expenditures outside the community.
10. Make sure that money paid into the local economy circulates within the community for as long as possible before it is paid out.
11. Make the community able to invest in itself by maintaining its properties, keeping itself clean (without dirtying some other place), caring for its old people, teaching its children.
12. See that the old and the young take care of one another. The young must learn from the old, not necessarily and not always in school. There must be no institutionalised “child care” and “homes for the aged”. The community knows and remembers itself by the association of old and young.
13. Account for costs now conventionally hidden or “externalised”. Whenever possible, these costs must be debited against monetary income.
14. Look into the possible uses of local currency, community-funded loan programmes, systems of barter, and the like.
15. Always be aware of the economic value of neighbourly acts. In our time the costs of living are greatly increased by the loss of neighbourhood, leaving people to face their calamities alone.
16. A rural community should always be acquainted with, and complexly connected with, community-minded people in nearby towns and cities.



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Horse and cart in Spain.

17. A sustainable rural economy will be dependent on urban consumers loyal to local products. Therefore, we are talking about an economy that will always be more co-operative than competitive.

These rules are derived from Western political and religious traditions, from the promptings of ecologists and certain agriculturists, and from common sense. They may seem radical, but only because the modern national and global economies have been formed in almost perfect disregard of community and ecological interests. A community economy is not an economy in which well-placed persons can make a "killing". It is not a killer economy. It is an economy whose aim is generosity and a well-distributed and safeguarded abundance. If it seems unusual to hope and work for such an economy, then we must remember that a willingness to put the community ahead of profit is hardly unprecedented among community business people and local banks.

How might we begin to build a decentralised system of durable local economies? Gradually, I hope. We have had enough of violent or sudden changes imposed by predatory interests outside our communities. In many places, the obvious way to begin the work I am talking about is with the development of a local food economy. Such a start is attractive because it does not have to be big or costly, it requires nobody's permission, and it can ultimately involve everybody. It does not require us to beg for mercy from our exploiters or to look for help where consistently we have failed to find it. By "local food economy" I mean simply an economy in which local consumers buy as much of their food as possible from local producers and in which local producers produce as much as they can for the local market.

Several conditions now favour the growth of local food economies. On the one hand, the costs associated with our present highly centralised food system are going to increase. Growers in the Central Valley of California, for example, can no longer depend on an unlimited supply of cheap water for irrigation. Transportation costs can only go up. Biotechnology, variety patenting and other agribusiness innovations are intended not to help farmers or consumers but to extend and prolong corporate control of the food economy; they will increase the cost of food, both economically and ecologically.

On the other hand, consumers are increasingly worried about the quality and purity of their food, and so they would like to buy from responsible growers close to home. They would like to know where their food comes from and how it is produced. They are increasingly aware that the larger and more centralised the food economy becomes, the more vulnerable it will be to natural or economic catastrophe, to political or military disruption, and to bad agricultural practice.

For all these reasons, and others, we need urgently to develop local food economies wherever they are possible. Local food economies would improve the quality of food. They would increase consumer influence over production; consumers would become participatory members in their own food economy. They would help to ensure a sustainable, dependable supply of food. By reducing some of the costs associated with long supply lines and



Harvesting potatoes in Bolivia.

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large corporate suppliers (such as packaging, transportation and advertising), they would reduce the cost of food at the same time that they would increase income to growers. They would tend to improve farming practices and increase employment in agriculture. They would tend to reduce the size of farms and increase the number of owners.

Of course, no food economy can be, or *ought* to be, *only* local. But the orientation of agriculture to local needs, local possibilities, and local limits is indispensable to the health of both land and people, and undoubtedly to the health of democratic liberties as well.

For many of the same reasons, we need also to develop local forest economies, of which the aim would be the survival and enduring good health of both our forests and their dependent local communities. We need to preserve the native diversity of our forests as we use them. As in agriculture, we need local, small-scale, non-polluting industries (sawmills, woodworking shops, and so on) to add value to local forest products, as well as local supporting industries for the

local forest economy.

As support for sustainable agriculture should come most logically from consumers who consciously wish to keep eating, so support for sustainable forestry might logically come from loggers, mill workers, and other employees of the forest economy who consciously wish to keep working. But *many* people have a direct interest in the good use of our forests: farmers and ranchers with woodlots, the makers of wood products, conservationists, and others.

What we have before us, if we want our communities to survive, is the building of an adversary economy, a system of local or community economies within and to protect against, the would-be global economy. To do this, we must somehow learn to reverse the flow of the siphon that has for so long been drawing resources, money, talent and people out of our countryside with very little if any return, and often with a return only of pollution, impoverishment and ruin. We must figure out new ways to fund, at affordable rates, the development of healthy local economies. We must find ways to suggest economically – for finally no other suggestion will be effective – that the work, the talents and the interest of our young people are needed at home.

Our whole society has much to gain from the development of local land-based economies. They would carry us far toward the ecological and cultural ideal of local adaptation. They would encourage the formation of adequate local cultures (and this would be authentic multiculturalism). They would introduce into agriculture and forestry a sort of spontaneous and natural quality control, for neither consumers nor workers would want to see the local economy destroy itself by abusing or exhausting its sources. And they would complete at last the task of freedom from colonial economics begun by our ancestors more than 200 years ago.□

Wendell Berry is a native of Henry County, Kentucky, where he farms, teaches and writes. He is the author of over 40 volumes of essays, poems, stories and novels, which have earned him many honours and awards. He is perhaps best known for his book *The Unsettling of America: Culture & Agriculture*.

Rethinking Education

The Western educational model needs to be seriously reformed if we are to educate future citizens about the new threats and opportunities posed by today's world. **By David Orr.**

The generation now being educated will have to do many vital things that we, the present generation, have been unwilling to do: prevent climate change; protect biological diversity; reverse forest destruction; stabilise the world population; reduce levels of consumption. They must rebuild the economy in order to tackle the power of giant corporations and unelected global institutions. And they must do all of this while addressing worsening social and racial inequities. No generation has ever faced a more daunting agenda.

Defining the Problem

Yet for the most part, we are still educating that generation as if there were no planetary emergency – even though it is clear that more of the same kind of education that enabled us to create that emergency can only make things worse. The current crisis has largely been created by the ‘well-educated’ – in Gary Snyder’s words, “people impeccably groomed, excellently educated at the best universities ... eating fine foods and reading classy literature, while orchestrating the investment and legislation that ruin the world.”

The skills, aptitudes, and attitudes that were necessary to industrialise the Earth are not the same as those that are needed now to heal the Earth, or to build durable economies and good communities.

The key point is this: the skills, aptitudes, and attitudes that were necessary to industrialise the Earth are not the same as those that are needed now to heal the Earth, or to build durable economies and good communities.

Finding Solutions: Five Vital Reforms

Looking ahead to the 21st century, the task of building a sustainable world order will require dismantling the scaffolding of ideas, philosophies and ideologies that constitutes the modern curriculum. Five measures are necessary to do this:

ONE: Redefine ‘Truth’

The architects of the modern worldview, notably Galileo and Descartes, assumed that those things which could be weighed, measured and counted were more true than those which could not. If

it couldn’t be counted, in other words, it didn’t count. Cartesian philosophy separated the human from the natural world, stripped nature of its intrinsic value, and segregated mind from body. Descartes’ legacy to the environment of our time is the cold mission to remake the world in human interests as if we were merely remodelling a machine. Feelings and intuition have been tossed out, along with those fuzzy, qualitative parts of reality such as aesthetic appreciation, loyalty, friendship, sentiment, charity and love.

These assumptions are not as simple or as inconsequential as they might have appeared in Descartes’ lifetime (1596-1650). A growing number of scientists now believe, like Stephen Jay Gould, that “we cannot win this battle to save [objectively measurable] species and environments without forging an [entirely subjective] emotional bond between ourselves and nature as well – for we will not fight to save what we do not love.” If saving

Science without passion and love can give us no good reason to appreciate the sunset, nor can it give us any purely objective reason to value life.

species and environments is our aim, we will need a broader conception of science and a more inclusive rationality that links empirical knowledge with the emotions that make us love and sometimes fight. Alfred North Whitehead noted the difference in these words:

“When you understand all about the sun and all about the



Children on a nature trail, UK

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atmosphere and all about the rotation of the Earth, you may still miss the radiance of the sunset... We want concrete fact with a high light thrown on what is relevant to its preciousness."

Descartes and his heirs simply had it wrong: there is no way to separate feeling from knowledge, or object from subject; there is no good way to separate mind or body from its environmental and emotional context. Science without passion and love can give us no good reason to appreciate the sunset, nor can it give us any purely objective reason to value life.

TWO: Challenge The Basic Assumptions

We must challenge the hubris, buried in the hidden curriculum, which assumes that human domination of nature is good, that the growth economy is natural, that all knowledge, regardless of its consequences, is equally valuable, and that material progress is our right. Because we hold these beliefs, we suffer a kind of cultural immune-deficiency syndrome that renders us unable to resist the seductions of technology, convenience and short-term gain. In this perspective, the ecological crisis is a matter of discerning between "life and death, blessing and cursing", as the writer of Deuteronomy put it, and of learning to choose life.

THREE: Instill Citizenship

The modern curriculum teaches a great deal about individualism and rights but little about citizenship and responsibilities. The ecological emergency can be resolved only if enough people come to hold a bigger idea of what it means to be a citizen. This is not just a social and political problem. The ecological emergency is also about the failure to comprehend how utterly dependent we are on the wider community of life. Our political language gives little hint of this dependence. The word "patriotism", for example, is devoid of ecological content; it should in the future also come to mean the use made of land, forests, air, water and wildlife. To

abuse natural resources, to erode soils, to destroy natural diversity, to waste, to take more than one's fair share, or to fail to replenish what has been used, must someday come to be regarded as unpatriotic. And "politics" once again must come to mean, in Vaclav Havel's words, "serving the community and serving those who will come after us."

FOUR: Question Technological 'Progress'

Faith in technology is built into nearly every part of the curriculum as a kind of blind acceptance of the notion of progress. When pressed, however, true believers describe 'progress' not as a consciously chosen path but as a largely uncontrollable technological juggernaut moving through history. Increasingly, such assumptions are being incorporated into our methods of pedagogy without much serious question. Computer literacy, for instance, has become a national goal in many countries, pushed more often than not by people who have something to sell. This technological fundamentalism deserves to be questioned: is technological change taking us where we want to go? What effect does technology have on our imagination and particularly on our social, ethical, and political imagination? And what nett effect does it have on our ecological prospects?

George Orwell once warned that the "logical end" of technological progress "is to reduce the human being to something resembling a brain in a bottle". Behold, fifty years later there are now those who propose to develop the necessary technology to

"People who look through glasses [microscopes] think themselves cleverer than they are: for their external sense is in this way taken out of equilibrium with their inner capacity for judgement. Microscopes and telescopes in fact confuse pure common sense"—Goethe, *Goethe on Science*, by Jeremy Naydler

"download" the contents of the mind into a robot-like machine/body (Moravic). Such research stands in sharp contrast to our real needs. We need decent communities, good work to do, loving relationships, stable families, and a way to transcend our inherent self-centredness. Our needs, in short, are those of the spirit, yet our imagination and creativity are overwhelmingly aimed at *things*.

FIVE: Challenge the Notion of 'Educational Institutions'

There is a fifth challenge looming on the horizon, one which strikes at the oldest and most comfortable assumption of all: that education can take place only in 'educational' institutions. During a recent social gathering, I was bluntly informed by a top executive that corporations, now engaged in what they take to be education, will put many American schools and colleges out of business in the next two decades. This is a warning to which teachers and administrators should listen, and for the same reasons that General Motors should have listened had a Toyota executive said something similar around, say, 1970. Colleges and universities are expensive, slow-moving, often unimaginative, and weighed down by the burdens of self-congratulation and tradition. They offer a discipline-centric curriculum that corresponds modestly with reality. The grip colleges and universities now have on 'education' will be broken when young people discover alternatives that are far cheaper, faster, and better adapted to economic – and therefore corporate – realities. And corporations will not educate liberally; instead, they will offer something more akin to high-tech job training. But that will not matter much to the growing number unable to afford the expense of a liberal arts education; it will matter, however, in terms of our larger prospects, whether people are trained narrowly or educated liberally.

The Way Forward: Ecological Education

Ecological education – the way of the future – will require the reintegration of *experience* into education, because experience is an indispensable ingredient of good thinking. One way to do this, for example, is to use the campus as a laboratory for the study of its own food, energy, materials, water and waste flows. Research on the ecological impacts of a specific institution reduces the abstractness of complex issues to manageable dimensions, and does so on a scale that lends itself to finding solutions – an antidote to the despair felt by students who understand problems but are powerless to effect change.

Any new curriculum must also be organised around what can be called the 'ecological design arts' – developing the analytical abilities, environmental wisdom and practical wherewithal essential for making things fit into a world of microbes, plants, animals and entropy. Ecological problems are in many ways design problems: our cities, cars, houses and technologies often do not fit the biosphere. We must integrate knowledge about how nature works throughout the curriculum.

But we must go further. I do not know who first proposed

"Someday someone will write a pathology of experimental physics and bring to light all those swindles which subvert our reason, beguile our judgement and, what is worse, stand in the way of any practical progress. The phenomena must be freed once and for all from their grim torture chamber of empiricism, mechanism and dogmatism; they must be brought before the jury of Man's common sense"

– Goethe, *Goethe on Science*, by Jeremy Naydler.

dividing the world up into disciplines, but the time has come to think about how we might reconnect things, that we dedicate part of the curriculum at all levels to the study of a thing or a place in our environment – a river, a mountain, a valley, a lake, soils, a marsh, a particular animal, birds, the sky, the seashore, or even an entire small town. Things like rivers are real, whereas disciplines



Ecological education – the way of the future – will require the reintegration of experience into education, because experience is an indispensable ingredient of good thinking.

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are abstract. Real things engage all the senses, not just the intellect. To know a river well, for example, one must feel it, taste it, smell it, swim in it, see it in its different moods, and converse with other people who know too.

Defenders of the conventional curriculum believe that mastery of a discipline leading toward specialised knowledge is an end in itself. I recommend reversing this priority in order to place knowledge in an ecological context, to engage all of the senses of the student and not just the intellect – to initiate a romance with the natural world, and perhaps also to teach the limits of knowledge. If students learn to understand how the world works as a physical system and why this understanding is important for their life, they will also know how to make an economy that works.

Finally, I would like to add a word about the *goals* of ecological education. The value of education cited most often is that it increases the graduate's potential earnings.

Accordingly, we aim to prepare the young for what guidance counsellors call 'careers'; we rarely mention what used to be described as a 'calling'. Students ought to be encouraged first to find their 'calling': that particular thing for which they have a deep passion and which they would like to do above all else. A calling is about the person one wants to make of oneself; a 'career' is a calculated plan to achieve financial security, which often turns out to be deeply unsatisfying, whatever the pay. A person can always find a career in a calling, but it is far more difficult later in life to find a calling in a career.

I would like to close with the words of E. F. Schumacher:

"Education which fails to clarify our central convictions is mere training or indulgence. For it is our central convictions that are in disorder and, as long as the present anti-metaphysical temper persists, the disorder will grow worse. Education, far from ranking as [our] greatest resource, will then be an agent of destruction..."□

David W. Orr is chair of the environmental studies programme at Oberlin College, and education editor of the journal *Conservation Biology*. His books include *Ecological Literacy* and *Earth in Mind: On Education, Environment and the Human Prospect*

Reconnecting With Nature

Shifting from global to local means rekindling our relationship with the natural world.



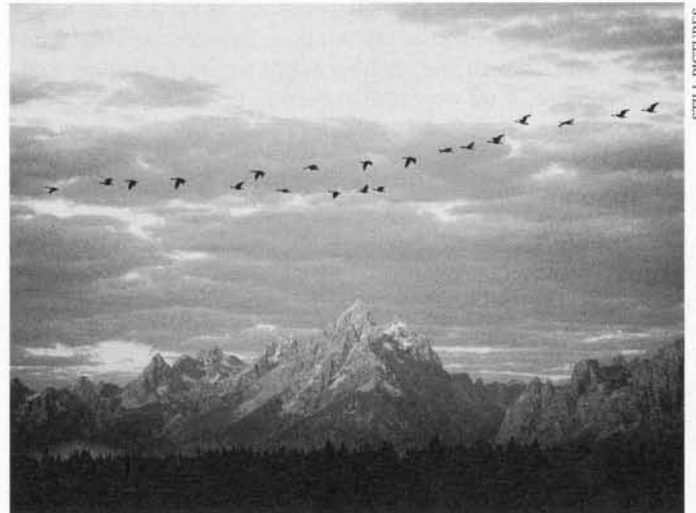
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“We need the tonic of wilderness – to wade sometimes in marshes where the bittern and the meadow hen lurk, and hear the booming of the snipe; to smell the whispering sedge where only some wild and more solitary fowl builds her nest, and the mink crawls with its belly close to the ground. At the same time that we are earnest to explore and learn all things, we require that all things be mysterious and unexplorable, that land and sea be infinitely wild, unsurveyed and unfathomed by us because unfathomable. We can never have enough of nature.”

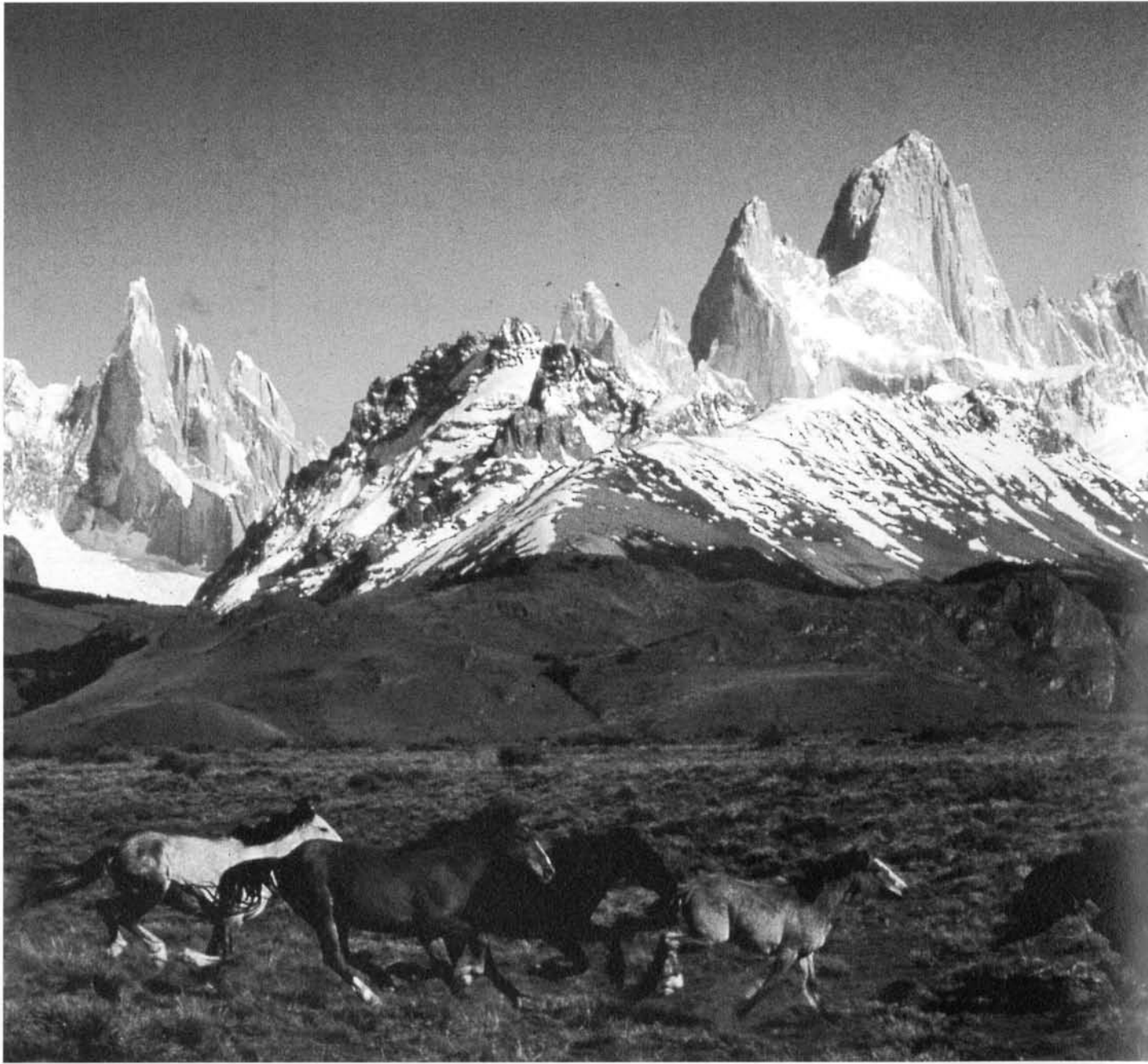
– Henry David Thoreau, *Walden*, 1854

Nature communicates today what it told the earliest of humankind, and what it will tell future generations when our modern high-rise cities are no more. Meanings, moods, the whole scale of our inner experience, finds in nature the ‘correspondences’ through which we may know our boundless selves. Nature is the common, universal language, understood by all.”

– Kathleen Raine, *Selected Poems*, 1993



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“Most often we think of the natural world as an economic resource, or as a place of recreation after a wearisome period of work, or as something of passing interest for its beauty on an autumn day when the radiant colours of the oak and maple leaves give us a moment of joy. All these attitudes are quite legitimate, yet in them all there is what might be called a certain trivialising attitude. If we were truly moved by the beauty of the world about us, we would honour the earth in a profound way. We would understand immediately and turn away with a certain horror from all those activities that violate the integrity of the planet.

We should be clear about what happens when we destroy the living forms of this planet. The first consequence is that we destroy modes of divine presence. If we have a wonderful sense of the divine, it is because we live amid such awesome magnificence. If we have refinement of emotion and sensitivity, it is because of the delicacy, the fragrance, the indescribable beauty of song and music and rhythmic movement in the world about us. If we grow in our life vigour, it is because the earthly community challenges us, forces us to struggle to survive, but in the end reveals itself as a benign providence. But however benign, it must provide that absorbing drama of existence whereby we can experience the thrill

of being alive in a fascinating and unending sequence of adventures.

If we have powers of imagination, these are activated by the magic display of colour and sound, of form and movement, such as we observe in the colours of the sky, the trees and bushes and flowers, the waters and the wind, the singing birds, and the movement of the great blue whale through the sea. If we have words with which to speak and think and commune, words for the inner experience of the divine, words for the intimacies of life; if we have words for telling stories to our children, words with which we can sing, it is again because of the impressions we have received from the variety of beings about us.

The world of life, of spontaneity, the world of dawn and sunset and starlight, the world of soil and sunshine, of meadow and woodland, of hickory and oak and maple and hemlock and pineland forests, of wildlife dwelling around us, of the river and its well-being – all of this some of us are discovering for the first time as the integral community in which we live. Here we experience the reality and the values that evoke in us our deepest moments of reflection, our revelatory experience of the ultimate mystery of things. Here... we receive those larger intuitions that



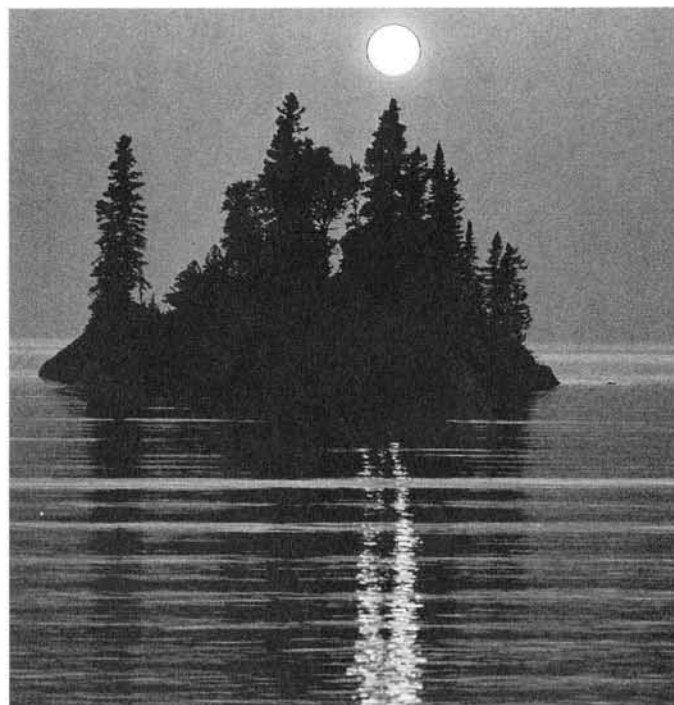
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“Animals cry. At least they vocalise pain or distress, and perhaps call for help. Most people believe, therefore, that animals can be unhappy and also that they have such feelings as happiness, anger and fear. But there is a tremendous gap between the common sense viewpoint and that of official science on this subject. The ordinary lay person readily believes that his dog, her cat, their parrot, or horse feels. They not only believe it, but have constant evidence of it before their eyes. All of us have extraordinary stories of animals we know well. Yet, by virtue of rigorous training and great efforts of the mind, most modern scientists – especially those who study the behaviour of animals – have succeeded in becoming blind to these matters.”

– Jeffrey Masson and Susan McCarthy, *When Elephants Weep*.



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lead us to dance and sing, intuitions that activate our imaginative powers in their most creative functions. This too is what inspires our weddings, our home life, and our joy in our children. Even our deepest human sensitivities emerge from our region, our place, our specific habitat, for the earth does not give itself to us in a global sameness. It gives itself to us in arctic and tropical regions in seashore and desert, in prairie lands and woodlands, in mountains and valley. Out of each a unique shaping of life takes place. A community, an integral community of all the geological as well as the biological and the human components. Each region is a single community so intimately related that any benefit or any injury is immediately experienced through the entire community.

To learn how to live graciously together would make us worthy of this unique, beautiful, blue planet that evolved in its present splendour over some billions of years, a planet that we should give over to our children with the assurance that this great community of the living will lavish upon them the care that it has bestowed so abundantly upon ourselves.”

– Thomas Berry, *The Dream of the Earth*, San Francisco, Sierra Club Books, 1988

“All the wild world is beautiful, and it matters but little where we go, to highlands or lowlands, woods or plains, on the sea or land or down among the crystals of waves or high in a balloon in the sky: through all the climates, hot or cold, storms and calms, everywhere and always we are in God’s eternal beauty and love. So universally true is this, the spot where we chance to be always seems the best, and it requires a distinct effort of the will to get oneself in motion for a change of place. On the plains where they are rejoicing in the beauty of wildness it is not easy to leave them and take flight to the mountains, while amid the glories of the mountains it is hard to get down to the smooth spacious levels, however richly they may be mantled with flowers and light. Oftentimes on some beautiful glacier meadow of the Sierra I have been so charmed that I would have been willing to be tethered to

a stake there forever like a horse at pasture, with only bread to eat and without hopes of seeing a single human being, content to revel in the perfect beauty about me through all the seasons. So also in the glorious exuberance of the tropics we would abide forever, were we not driven and pulled away by the same mysterious forces that send birds and animals on their travels. While, on the other hand, the polar regions are so enchantingly beautiful, we would gladly stay there also to enjoy the huge round days of summer, sunful and nightless like heaven, the mysterious shining ocean of ice, the boundless tundras covered with bloom and throbbing with warm, glad life in endless abundance, and the one huge silent night of winter with its stars and snow-crystals and auroras, one mass of celestial radiance shining in space serene and silent. Easy, then, it is to believe our world is a star, for it looks like one as bright and as silent as any of its neighbours.

Sauntering in any wilderness is delightful, through woods, rocks, bogs, plains and deserts, and green shaggy meadows, and over fields of snow and the crisp crystal prairies of the glaciers, drifting like thistledown responsive to every breeze of influence, however fine, that chances to touch us. Most of one's shorter

walks are of this kind, adrift on currents gentle and invisible, bearing us we know not whither, but in all my long excursions there was some main object in view – a mountain, lake, belt of woods, a canyon or glacier – towards which my steps were bent by a course direct or wavering. When we are with Nature we are awake, and we discover many interesting things and reach many a mark we were not aiming at: some new flower or bird or waterfall comes to our eyes, and we gladly step aside to study it; or some tree of surpassing beauty attracts our attention, or some grove, though the species may be well known; or we come upon a specimen that has been driven and scattered by lightning stroke, or bent into an arch by snow, or one or many over which an avalanche has passed. Or we come upon the wild inhabitants of the region – a bear at breakfast beneath the nut-bearing trees or in the thickets of berry bushes, or deer feeding among the chaparral, or squirrels and marmots at work or play. Birds, too, come forward and sing for us and display their pretty housekeeping. All these and a thousand other attractions enrich our walks beyond the attainment of the main object, and make our paths unconsciously crooked and charming. It is as if Nature were saying: 'The way is

long and rough and the poor fellow is weary and lonesome. Birds, sing him a song; Squirrels, show him your pretty ways; Flowers, beguile the steep ascent with your beauty; sparkle and bloom and shine, ye Lakes and Streams; and wave and chant and shimmer in the sunlight, all ye Pines and Firs, that the wanderer faint not by the way.'

And thus we find in the fields of Nature no place that is blank or barren; every spot on land or sea is covered with harvests, and these harvests are always ripe and ready to be gathered, and no toiler is ever underpaid. Not in these fields, God's wilds, will you ever hear the sad moan of disappointment, 'All is vanity.' No: we are overpaid a thousand times for all our toil, and a single day in so divine an atmosphere of beauty and love would be well worth living for, and at its close, should death come, without any hope of another life, we could still say, 'Thank you, God, for the glorious gift!' and pass on. Indeed, some of the days I have spent alone in the depths of the wilderness have shown me that immortal life beyond the grave is not essential to perfect happiness, for these diverse days were so complete there was no sense of time in them, they had no definite beginning or ending, and formed a kind of terrestrial immortality. After days like these we are ready for any fate – pain, grief, death or oblivion – with grateful heart for the glorious gift as long as hearts shall endure. In the meantime, our indebtedness is growing ever more. The sun shines and the stars, and new beauty meets us at every step in all our wanderings."

– John Muir, "A Voyage to Alaska" in *Travels in Alaska*, 1890

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10-11 July, 1999: *14th Low-Level Radiation and Health Conference*. Lancaster University. For more information, contact CORE, 98 Church Street, Barrow-in-Furness, Cumbria, LA14 2HJ. Tel: 01229 833851; Fax: 01229 812239; Email <janine@core.furness.co.uk>

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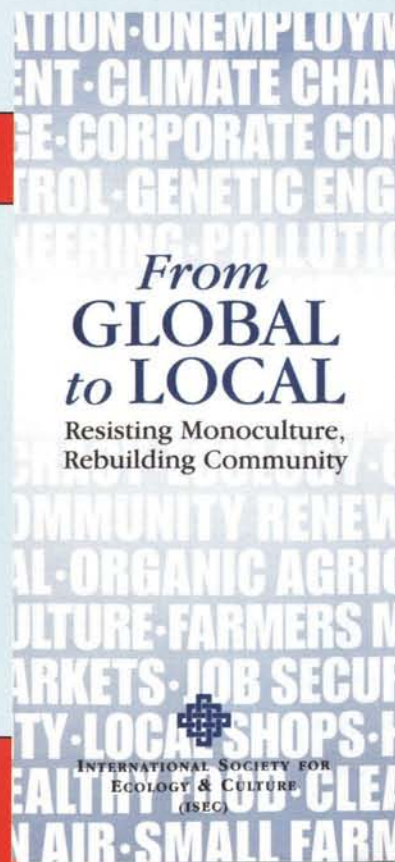
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