LIMITS TO PROPERTY

The failure of restrictive property regimes in the modern world

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means well-being

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environment
lifestyles must
become sustainable

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power and influence

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nef The New Economics Foundation is a registered charity founded in 1986 by the leaders of The Other Economic Summit (TOES), which forced issues such as international debt onto the agenda of the G7/G8 summit meetings. It has taken a lead in helping establish new coalitions and organisations, such as the Jubilee 2000 debt campaign; the Ethical Trading Initiative; the UK Social Investment Forum; and new ways to measure social and environmental well-being.

“For the more there are who say ‘ours’, not ‘mine – by that much is each richer.”
Dante

“If nature has made any one thing less susceptible than all others of exclusive property, it is the action of the thinking power called an idea…No one possesses the less, because every other possess the whole of it. He who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at mine, receives light without darkening me.”
Thomas Jefferson

“Diffused knowledge immortalises itself.”
Sir James Mackintosh

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The man who owns the solar system

You can buy a one acre plot of land on the moon for £19.95. Slightly cheaper is Venus, which can be had for £14.25 per acre, plus registration fee. You can do this because on November 22nd, 1980, Dennis M. Hope went into the offices of San Francisco County and filed a declaration of ownership for both. Just to be sure he then also filed with the Federal Government, in the U.S.S.R, and at the General Assembly of the United Nations. You get a copy of the declaration with every property purchased. Denis Hope was nothing if not, well, hopeful.

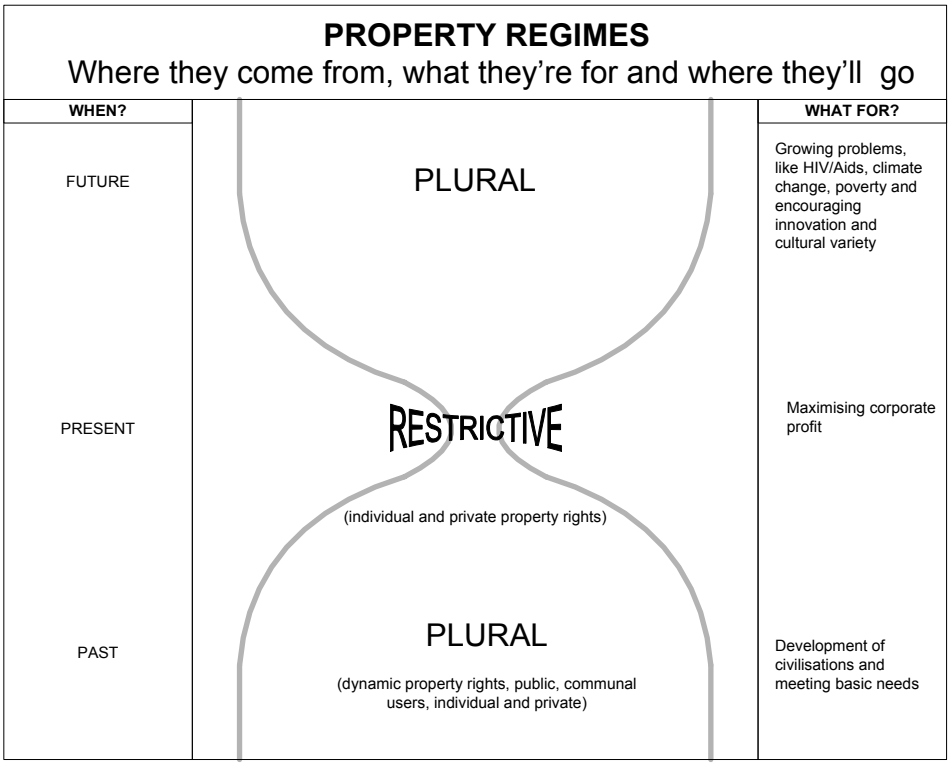
He also declared ownership of the planets Mars, Mercury, Jupiter, Saturn, Uranus, Neptune, Pluto and all their respective moons. Soon plots of land on Jupiter's Moon, Io, will be available. He set up the Lunar Embassy in Rio Vista, California and started to licence others to sell plots. One such, MoonEstates.com, describes itself as the United Kingdom's 'only extraterrestrial land agents.'

They can't be serious, can they? In 1967 The Outer Space Treaty was signed by the international community, expressly forbidding and government from claiming any celestial bodies as their property. But there was a loophole. The committee responsible for the Treaty's wording forgot to include private firms or individuals in their draft. The mistake was spotted and in 1979 the Moon Treaty was agreed. It would have prevented the exploitation of space for private profit. But only six countries signed.

Those eager today to sell you a space ranch see this as a good thing. In their eyes the Moon Treaty, "would outlaw property rights in the rest of the universe and indefinitely bog down space settlement in a 'common heritage of all mankind' morass." Thousands of people are buying plots. Look no further for evidence that the prospect of great wealth linked to property rights can loosen your grip on reality.

Condemning the evil of the Moon Treaty, the sellers point out, "If it had been ratified and oil was found on the Moon; any company would by law be prohibited from mining it. Surely, that is not in the public's interest. (and if you find it on your property... well, congratulations...you could be very rich!)." No thought here of the scenarios' unlikeliness, or even the problems inherent in extraction, transport, or the climate change that results from burning oil. The sellers go to great lengths to establish their seriousness. For Mars, a careful Bill of Rights has been written to mediate in the event of land disputes arising between you and a 'native creature.' They deny that their product is a novelty item.

And property rights are no laughing matter. They can be absurd, yes. But they can also be cruel, necessary and negligent in their absence. For example, applying restrictive patent rules to vital drugs kills thousands of people every day according to one leading development agency. In other areas such as the global



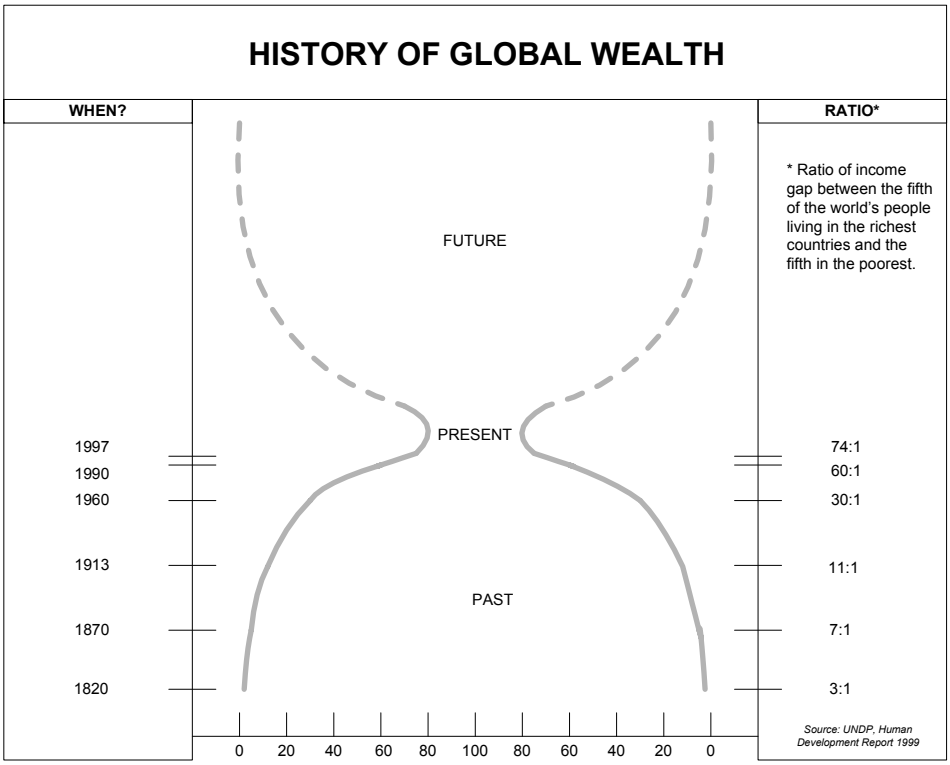
commons of the atmosphere, the failure to establish an equitable property rights regime, has prevented finding a solution to global warming.

This report describes an 'hour glass' curve in approaches to property. We have come from a history of broad experimentation with different regimes used to match different circumstances. Now we are entering a narrow, restricting bottleneck. Single-minded, one-size-fits-all definitions of ownership and control are being applied to all areas of life regardless of whether they equip us with the tools we need to solve global or local problems such as climate change, hunger, disease, homelessness and poverty.

Why does it matter? Simply because it is a matter of life and death. The global economy keeps growing but, in climate change, it is meeting natural limits. The gap between rich and poor within and between countries keeps growing too, undermining social stability and making the world a less safe place. Increasingly restrictive property regimes are a mirror image of the growing gaps between rich and poor, both within and between countries (see graphs). This report argues that our approach to who owns what, lies behind these problems, and that a new attitude is needed to how property is claimed and then shared around the world.

But, just as the world needs to think afresh about how to share a crowded and fragile planet marked by mass poverty and minority wealth, policy makers are hypnotised by ideas that are likely to worsen these negative trends.

Very particular Western-style, and especially American-style, intellectual property laws increasingly permeate international trade and business. At the same time, official development planners have fallen under the spell of highly individualistic approaches to property ownership – in the work of Hernando De Soto, for example – at the expense of other, more communal and public ways of managing resources. Ironically, De Soto is the namesake of one of the Spanish Conquistadors who got rich plundering South America and amassing Inca gold in the 1530s and 1540s.



History illustrates an immense diversity in the ways that society owns and manages the stuff of its economic livelihood. Over time that great plurality - some good, some bad - has been eroded. Markets built on private ownership of ideas and things have expanded to capture more and more of our lives, including life itself in the patenting of organisms and genetic information.

Open a history book or turn the page of a newspaper and you will find the battle over ownership. You will see titanic struggles between empires and the oppressed, and corporate goliaths in mortal combat with the Davids of civil society.

Globalisation 19th century style

In the second half of the 19th century, the British Empire changed indigenous systems of land ownership and restructured the rural economy of large parts of India. A huge shift followed towards producing cash crops like cotton, indigo and opium for export. When there had been hardship before, often caused by extreme weather conditions, the nature of the rural economy and its social relations largely prevented major famines emerging.

But after the British intervention, places like Bengal experienced famine on an apocalyptic scale. Mike Davis points out in *Late Victorian Holocausts* that: "Peasants and farm labourers became dramatically more pregnable to natural disaster after 1850 as their local economies were violently incorporated into the world market." A precondition for 'incorporation', and the intervention into village society 'most important' in nurturing the Anglo-Indian empire, was dividing public from private land. "Common lands – or "waste" in the symptomatic vocabulary of the Raj," says Davis, "were either transformed into taxable private property or state monopolies. Free goods, in consequence, became either commodities or contraband." Water became a private good linked to land ownership in a way completely alien to India. So, no land meant no water. As back in Britain, enclosing common resources undermined 'traditional household ecology.'

Globalisation in the 19th century was on the terms of the dominant power, Britain. The British claimed that they had rescued India from 'timeless hunger'. But it was

the sort of rescue that they could have done without. The structural adjustment of India by the British Raj, and its knock-on effect in China, wrecked indigenous coping strategies. As many as 31 serious famines happened in 120 years of British rule in India, during which millions died. Only seventeen had been recorded in the previous 2,000 years. In just under 200 years of British rule up to 1947, there was no increase at all in India's per capita income.

A matter of life and death

By the time India fell under the Raj, rural populations in Britain had already lived with centuries of progressive erosion of their own common rights. This erosion of secure livelihoods continues today around the world in the concentration of land ownership.

In one of the world's most unequal societies, Brazil, the Landless Movement today fights battles that rural people in 17th century Britain or 19th century India would recognise. But the life-and-death issues of property ownership are more than about land. For example:

Medicine

Based on figures from the World Health Organisation, Oxfam says that 37,000 people die each day from preventable diseases because world patent rules – which turn knowledge into private commercial property – price life-saving medicines out their reach.[1]

In 2001, both South Africa and Brazil were taken to court over policies which deliberately denied international rules on intellectual property protection in order to provide life-saving AIDS/HIV medicines to their citizens.

Health

The creeping privatisation of public services affected by the General Agreement on Trade in Services (GATS) has also become a major concern for international agencies working on the frontline of trying to guarantee basic human needs.

Development agency Save the Children conclude from their field experience that increasing private sector control of essential services like health and water "is the wrong model to follow if countries wish to develop strong public health systems for all their people." They continue: "Private sector involvement often excludes poor children from access to these basic services."[2]

Water

Access to water is still not regarded as a human right, and water itself is increasingly treated as a commodity. Ideological pressure from the rich North is forcing some developing countries to privatise their public utilities, including water.

In Bolivia the water supply system of Cochabamba was sold off to a group of foreign and national companies. Within weeks, water prices had more than doubled. Many families facing bills of more than 20 per cent of their monthly income were told to pay up or be cut off. Many other countries tell similar stories.

Water systems are already threatened by over-use and struggle over their control is often a flashpoint for conflict. The impact of climate change is an even greater problem: water privatisation may make it even more difficult to adapt to global warming.

Limits to property and the new security agenda

To tackle these threats to our collective security, NEF believes we must move towards a more plural approach to ownership, where the framework chosen is designed to address specific problems. This is the lower, outward branching of the 'hour glass' curve, where we embrace diversity. In practice this might mean:

- Equal shares in the global commons – as we try to control the pollution of the global commons of the atmosphere, worldwide equal per capita entitlements to its services.

- Free knowledge in health and drugs designed for major public health crises such as AIDS/HIV.
- Community land management through mechanisms like community land trusts.
- Community seed banks and no patents on essential food stuffs.
- Time limited companies and ownership transfer corporations.
- Mutual ‘ownership’ of public services.
- Greater application of ‘user rights’ to deal with the problem of absentee land and property owners withholding useful and productive assets from communities in need.

It is time to turn away from the increasingly narrow and restrictive Anglo-Saxon approaches to ownership of property that currently characterise the global economy. Faced with monumental health, social and environmental problems, the crude use of property as a ‘right to exclude’ leaves us without the tools we need to solve the crises.

The protection of a restrictive notion of intellectual property in the agreements of the World Trade Organisation, and increasingly embedded in national legislation, leaves us in a situation in which, when the only tool you have is a hammer, all problems look like nails. But our problems are more many and varied, and to deal with them we need a bigger toolbox.

Part 1
A history of property

The False Dichotomy

The history of property cannot be reduced to a false dichotomy between private and public ownership. With that analysis, everything in human history gets categorised according to the 20th century ideological battle between capitalism and communism – and any system that falls outside these two extremes get labelled as 'inconsistent' or 'contradictory'. Actually, of course, even the extremes of capitalism and communism differed hugely from their textbook versions.

Take Plato's *Republic*. Plato was a great admirer of the fierce Spartans, who had defeated his own city of Athens in the Peloponnesian Wars largely thanks, in his view, to the rigid discipline of their political institutions. Spartans were forbidden to own material goods and their children had to be given up to the state at the age of seven for military training. In Plato's utopian republic, therefore, the ruling elite was likewise prohibited from owning property in the hope that they would be free from all personal interest and would devote themselves exclusively to the public good. But it often goes unnoticed that the commoners of his republic, those who provided the elite with their food, were in fact expected to own property.

Aristotle is often regarded as the first great upholder of the institution of property. He argued in his *Politics* that property contributes to the happiness of human society by placing a limit on people's desires and thereby preventing discord. But although Aristotle wished to protect people's right to own property, he was also keen to regulate the ways in which they used it. He did not, for example, approve of lending money for profit – a practice usually regarded as a key part of a successful capitalist society.

The Continuum

It is therefore more realistic to regard the history of property as a continuum, along which different cultures and societies can be placed somewhere between absolute private ownership and complete community control of assets, and which allows them to use different aspects of both ideas for different purposes.

The eighth and the tenth of the Ten Commandments prohibit stealing and the coveting of a neighbour's possessions. But before concluding that the Jews regarded property in much the same way as we do now in the West, it is worth taking a look at the book of Leviticus, in which the God of Israel forbids the absolute alienation of the land: "The land shall not be sold for ever: for the land is mine; for you are strangers and sojourners with me." Any land sold by the early Jews reverted to the original owner after a term of 49 years in order to prevent the development of inequality between different families.

The modern Jews remembered this principle when they re-occupied Israel after the Second World War, and set up the political institutions of their new state. To this day, 90 per cent of the land in Israel still belongs to the state and is let on

long-term leases to private individuals. The same system applies in Singapore, Hong Kong and Canberra in Australia, where the retention of the freehold allows the state greater control over the use of land in places where there is a shortage of it.

The Romans

Though not given to great abstract systems of thought, the Romans did develop the first legal definition of property, or *dominium* as they called it. This was a practical response to the problems of distributing conquered lands to soldiers and veterans. Property, they decided, was an object – or indeed a person in this period – that had been lawfully obtained, was exclusive to the owner, absolute and permanent. As the Roman Empire expanded into Asia, Africa and Western Europe, this definition came to be incorporated into the civil societies of a vast number of different and divergent peoples.

In order to administer the empire, Roman lawyers set about developing a universal or 'natural' law that could be applied to all nations. The right to property was instituted as one of these 'natural' laws, which were regarded as rational and above the peculiarities of regional custom.

The early Christians, however, were able to operate a form of common ownership within the Roman system. According to the Acts of the Apostles, the church at Jerusalem grew into "a multitude of them that believed who were of one heart and of one soul; neither said any of them that aught of the things which he possessed was his own, but they had all things in common" (Acts 4: 32).

But once Christianity became institutionalised as the faith of the Roman Empire, this ideal could not last long. Spiritual power was quickly exchanged for the considerable temporal power that the declining political institutions of Rome left vacant. The Church soon adopted the pragmatism of St Augustine, who argued that since Man was a corrupt being, the institution of property was necessary to prevent mischief. Even so, property in medieval Europe came with a responsibility and certain binding conditions, rather than the fundamental human right set out by the Roman model.

And some remnant of the Church's original purity was maintained in the practice of the *precarium*. This was an endowment given to the Church by a man on entering the priesthood. The income would be used to support him during his life, after which the estate would become the property either of the Church or of his congregation, rather than his relatives.

This practice was a major reason for the immense wealth the Church accumulated in the centuries leading up to the Reformation. The Church was supposed to use its wealth to relieve the suffering of the poor and indigent, acting as a kind of voluntary welfare state. Monasteries were on the front line of relieving poverty, disease and ignorance.

"I transmit rather than create"

Through the Middle Ages, the Church was the repository of learning and knowledge. Priests and clerics were the almost only people who knew how to read and write, but they were not expected to do so for earthly profit. Knowledge was regarded as a gift of God, and was, therefore, not for sale. Spiritual enlightenment was the only reward of a talented writer, just as the gratitude of his friends was the only reward for the enterprising individual who first operated a four-wheel cart.

Copyrights and patents were first introduced in Britain in the 18th century. It was thought – and still is – that they would provide an incentive for innovation and that individuals would be encouraged to share their ideas without fear of being copied. But China, which had been printing books since the 7th century AD, had long been a technological innovator without ever instituting formal intellectual property rights. The dominant ideology of Confucianism meant that the authority of the past was more highly prized than originality. The shared heritage of the past was used as a regulator of social conduct and therefore required broad access. Moreover,

language was thought to come from nature and not from human beings, and it was considered wrong to exclude others from the common heritage of all civilised beings. Plagiarism was regarded as a form of flattery, and writers saw themselves as interpreters rather than creators.

Feudalism and enclosure

Europe emerged from the ruins of the Roman Empire as a series of highly independent political units, with the Catholic Church acting as the only major central authority. Landowners provided the tenants with security and a system of relatively impartial justice in exchange for which the tenants offered their labour and a portion of their produce. Villages were run on a more or less communal basis, with each family cultivating a handful of strips in each field in the surrounding country, with common land laid aside for pasture for animals. The bull and boar were owned by the village and often kept by the local priest.

In England, this system remained largely intact until the 14th century when the increasing wealth of urban merchants encouraged landowners to convert their arable land into pasture for sheep, from which they could obtain a greater profit from less labour on the lucrative wool and textiles market. Common land – formerly available to anyone who wanted to graze their livestock - was fenced off by landowners over the next four centuries by some 4,000 parliamentary Enclosure Acts, which seized seven million acres of common land. Small tenants were thrown off their land and forced out to cities where the lucky ones found work as wage-earning labourers.

Similar conflicts between the interests of progressive capitalism and peasant independent labour has been a source of tension between the indigenous and immigrant populations of Latin America for centuries. It sparked the Mexican Revolution of 1910, when – after more than 30 years' rule under the dictator Porfirio Diaz – a group of peasants led by Emiliano Zapata rose up in arms behind the controversial Plan of Ayala, which demanded the return of common land taken from peasant farmers by the expansion of cash-crop haciendas. The plan for agrarian reform was eventually incorporated into the *ejido* system introduced after the Revolution.

The rules on this co-operative use of land have recently been relaxed to make way for Mexico's entry into the North American Free Trade Association. A new generation of Zapatistas continues to fight for the redistribution and mutualisation of the land in the state of Chiapas.

New worlds

The first successful European expedition after the Vikings to America in 1492 upset a number of European assumptions. Early explorers discovered that many American Indians had no use for the institutions of property. Two different theories were dreamt up to explain this. Either the Indians were prelapsarian 'noble savages' who had not yet been corrupted by the vile effects of property and acquisitiveness. Or they were uncivilised barbarians who were thousands of years behind the rest of the world in their development and needed help in order to fulfil their human potential.

From these two strands developed the two opposing theories of property that were to dominate political debate in the following centuries. Rousseau argued that "the first man who fenced off a plot of land, thought of saying 'This is mine' and found people simple enough to believe him was the real founder of civil society", and that human history could be regarded as the story of the disastrous consequences of that first deception.

In Rousseau's wake came the Jacobins of the French Revolution, the Utopian Socialists and the Chartists, and eventually Marx and his followers, who were to institute communism on the grandest scale in the 20th century.

The other tradition was led by John Locke, who argued that labour was the source of property, and that land belonged to the person who made it productive. This justified colonial expansion into the 'unimproved' corners of the world where the

rights of indigenous people were conveniently forgotten in favour of the followers of Adam Smith who argued that solid property rights were a necessary precondition of stable economic growth and development.

This last dogma remains precious to 21st century capitalists, who seem unwilling to recognise the successes of the Asian 'tiger' economies using a system that has little in common with the purist's idea of a free market, or acknowledge the failure of many of the post-communist states in eastern Europe that have been exposed to the West's enlightened 'shock therapy' method of reintegrating them into the capitalist system.

But even in the USA, home and chief sponsor of this dogma, private property was not always an end in itself. Benjamin Franklin argued that only the productive resources necessary to an individual's subsistence were inalienable rights. He said: *"All property superfluous to such purposes is the property of the public, who by their laws have created it, and who may therefore by laws dispose of it, whenever the welfare of the public shall demand such disposition. He that does not like civil society on these terms, let him retire and live among savages".*

Blinded by science

Philosophers of every hue have co-opted science to illustrate their angle of vision. Marx and Engels used fashionable historical research of the 19th century, in particular that of Lewis Henry Morgan in India, to argue that property was artificial and that Man in his primitive state was communist. Most of this research has since been proved questionable.

Meanwhile, deterministic psychology has been used to illustrate the natural acquisitiveness of mankind, and argue that children's instinctive response to the idea of possession is both a means of developing the individual personality and a justification of the political institutions of private property as natural.

Anthropologists continue to explore the customs of different cultures and uncover widely divergent ideas governing the uses of property. Karl Polyani has argued that the West's economic institutions are unique in having been disembedded from the social ones that gave rise to them.

Geographical explanations have also been offered. Anthropologist Maurice Bloch compared the different social organisations of two tribes in Madagascar, the Merina and the Zafamaniry and drew conclusions about the kinds of institutions that had developed in them. The Merina were rice-planters and used property to make sure they were the long-term beneficiaries of their labour, while the Zafamaniry were shifting cultivators and lived in a far greater expanse of land, allowing them a more relaxed attitude to property, which remains embedded in familial relations.

Forcing a square peg into a round hole?

For Westerners, the notion of private property is an integral part of how we relate to the world around us. The right to have individual assets and ideas protected by force of law is so deeply embedded in our society that any approach to land use, technological progress and economic development seems absurd without it.

It is therefore difficult for those living in advanced industrialised countries to fathom that for millions of people in Africa these concepts are, in some contexts, alien and even immoral. Western land rights systems are based on the notion that ownership is both *absolute* and *exclusive*, with property boundaries surveyed, mapped and documented by a government registry. In contrast, most African societies have traditionally governed land resources through a system of collective rights and responsibilities.

Tenure is based on the principle that everyone in a community has rights to the land, but such rights are balanced against peoples' obligations to the entire group. Rights are therefore *relative* and *shared*, with privileges and obligations held at various levels of social organisation – like the family, neighbourhood or village.[3]

Another fundamental difference exists in the case of seeds. Since the Second

World War, property rights systems in advanced economies have incorporated plant variety protection (PVP) measures to safeguard the investments of commercial crop breeders. PVP guaranteed seed companies a commercial monopoly on their varieties, while offering 'loopholes' through which farmers could continue to use the seeds.

With the progression of biotechnology over recent years, intellectual property (IP) systems have extended to offer full-scale patents to 'inventors' of genetically modified cultivars. Under this system patent holders gain exclusive rights to the 'intellectual property' of that cultivars' genetic make-up, and are entitled to financial compensation from users each time one of their seeds is planted.[4]

While most farmers in the West have accepted that patents on plants are inevitable in modern capitalist economies where almost anything can be owned, bought and sold, the concept of conferring individual ownership to a life form is abhorrent to African farmers. Zimbabwean IP expert Andrew Mushita explains that, in Africa, ownership of seeds, knowledge, and technologies is usually held collectively. "In the African context, customary law is applied," explains Mushita. "It does not recognise private proprietary rights but rather community resource rights. All resources belong to everyone and they are regulated by the community's cultural and local knowledge system and practices."

Dr Tewolde Egziabher of the Ethiopian Environmental Protection Agency says that it was through the "collective generation, modification, conservation and exchange across generations and communities, that knowledge, technologies and biodiversity became owned and managed by the community, and used by anyone who wants them." He notes that charging money for access to seeds is unknown throughout most of rural Africa, although reciprocation in kind is vital for the perpetuation of the system.[5]

For Egziabher, the concept of seed patents does not even have a logical basis: "Patents are for inventions derived by intellectual activity of the human mind. No living thing or part of a living thing, even a gene, has ever been invented, only discovered."[6]

The wrong rights?

As a country with a long colonial history, the Philippines has had hundreds of years to adapt to Western notions of private property rights and individual resource ownership. But for the country's 6.5 million indigenous and tribal peoples, these concepts have never stuck.

Like many such groups around the world, most indigenous peoples in the Philippines do not view the land as something that can be owned. They believe communities have a collective duty of care, management and use of the resources from it. Sadly, the lack of defined property rights for indigenous peoples in the Philippines has meant that much of the area falling within their ancestral domain, mainly primary forests, has been encroached upon by settler farmers, logging companies and mining concessions. Time and again, the country's tribal peoples have been forced out of the places their people had lived for generations, frequently ending up as low-skilled workers or impoverished beggars in the country's burgeoning towns and cities.

After years of pressure by indigenous peoples' and other civil society groups, the government of the Philippines passed the Indigenous People's Rights Act (IPRA) in 1997 to protect the rights of indigenous peoples to their ancestral domains, and make sure they would benefit from any commercial exploitation of the resources upon this land. The law was initially hailed by human rights, religious and civil society groups as the first piece of national legislation to recognise indigenous land rights.

By offering a system of titling to indigenous communities, the IPRA conceded the right for indigenous peoples to gain access and control over natural resources within their ancestral domains. The government also cannot issue permits, leases, licenses or agreement to any other entities "unless with prior, informed

and written consent".[7]

But after reflection, however, some representatives from indigenous peoples groups began to question the nature of what had been granted to them. According to the Philippine NGO Kalikasan, the law "presupposes that the indigenous peoples as a group have access to the law and are able to use to their benefit", and had aggravated "disunities and land disputes among indigenous people in general, within indigenous communities (families and clans), and between indigenous and non-indigenous communities."

But the organisation's most serious critique was that the IPRA had conferred the idea of private property ownership onto groups of people to whom this concept was traditionally abhorrent. Kalikasan says the IPRA "ties down indigenous people's rights to ancestral lands, which traditionally had been a political as well as cultural and ecological frontier, to a system of titling which has often been alien to and discriminatory of them".

Similar concerns have been raised by the United Nations High Commission on Human Rights. In December 2002, the UN Special Rapporteur on the Rights of Indigenous Peoples paid a visit to the Philippines, to assess the impact of the IPRA and discuss any issues that indigenous communities had with its implementation. The visit by Dr Rodolfo Stavenhagen, a Mexican research professor specialising in human rights, took him to four parts of the archipelago.

Dr Stavenhagen noted that the issue of land rights and interpretations of economic development lay at the heart of indigenous peoples concerns in the Philippines. Many of those he met spoke of their frustration that, despite the new laws, the business interests of private companies were still more protected than their own rights based on land use and occupation for generations. He also noted that the issue of land rights is, in the eyes of indigenous peoples, intimately tied into tensions about the nature of development and the right to self-determination. "The land rights problem is closely related to the issues surrounding economic development strategies as they affect the areas in which indigenous peoples live," he said. "Numerous indigenous communities have taken advantage of new economic opportunities provided by changes in productive activities, adjusting their lifestyles accordingly. Others, however, have felt the negative impacts on their lives of such changes that frequently occur without their prior consent. Many communities resist being forced or pressured into development projects which destroy their traditional economy, community structures, and cultural values, a process that has been aptly described as "development aggression", *and that challenges the prevailing view that there is only one possible way to promote and ensure economic development* (emphasis added).[8]

These comments reflect the underlying tension created by the IPRA. As indigenous groups struggle to come to terms with the cross-wiring of world-views about rights to their ancestral domains, frictions are emerging not just between these groups and government agencies or private corporations, but within communities themselves. Ironically, one of the most progressive pieces of legislation enacted on behalf of indigenous peoples anywhere in the world could be contributing to a dramatic decline in the solidarity, cultural identity and social cohesion of indigenous societies in the Philippines.

Global warming and the lost resilience of 'share economies'

Development pressures are not new, and are nearly always disruptive. Ever since more regular contact with Europeans and Americans in the middle of the 19th century, the people of Tuvalu have been drawn "inescapably into the complex commercial system of their visitors."[9] Slavery and the copra trade characterised early encounters. One visit by slave traders took 250 people from the island of Nukulaelae, leaving only 65 behind.[10]

Alcohol, urbanisation, land shortage for housing and gardens, a consequent shortage of local foods and the twin problems of increasing dependence on cash-bought goods and 'unemployment' are now common problems in Tuvalu, a string of islands in the South Pacific. "Increasingly all the islands are dependent on

imported food," says Mataaio Tekenene. "The older generation say it is bad, expensive and brings new diseases like heart attack and diabetes. And that the food is not fresh. I support the older people but we cannot escape from it. We have become dependent."

These changes are significant also for the way they affect a community's ability to respond to disasters. Tuvalu is one of the countries in the world most threatened by global warming. At its highest point it is only a few metres above sea level. Detailed studies of island economies based predominately on sharing and gift exchange, such as Nanumaea, show that mutually supportive communities grew out of this fundamentally different way of organising an economy.

The intrusion of a competitive and acquisitive economic culture directly affects communal vulnerability, according to anthropologists Keith and Ann Chambers. "In a sharing system, maintaining supportive social relationships is so intrinsic to the exchange process that short term tallies of material benefit are meaningless. As a result, sharing equalises access to resources across a community and serves as a socio-economic levelling mechanism," they say. Alternatively the market system pushed by aid projects "all support the weakening of sharing obligations".[11]

Current social change in Tuvalu shows how co-operative behaviour can be lost. This can be seen on the increasingly westernised main island of Funafuti, which has been the focus of private sector development. "They don't share things in the same way. They won't share outside the family," says Sunema of the Tuvalu National Red Cross Society. "On the islands (which are much less westernised) they help each other, they help everyone. When there is a disaster you need things."

"Community cohesion, evocatively dubbed 'unity of heart' by Nanumeans, is often regarded as fundamental to entrepreneurial development. There seems little recognition, however, that communal values are at odds with the individualistic orientation of capitalistic-based development," say Keith and Ann Chambers.

In the long history of its existence, property has never been proved either right or wrong, natural or artificial, corrupting or stabilising. It has not been proved to be the only way of providing incentives to development, or the principle cause of inequalities in society. This lesson should teach us to avoid any dogmatic insistence on one way of organising property relations in a world which has offered so many different examples of others.

Part 2
The new enclosures

Concentration of wealth

Restrictive property laws exacerbate inequalities of wealth on both a national and international scale. According to the UN Development Programme, 358 billionaires with a combined net worth of $760bn – equal to the wealth of the poorest 2.5bn people – profit from the unequal distribution of the world's natural resources.[12] Statistics about land ownership are a well-kept secret, but a 1979 survey found that a mere 2.5 per cent of landowners with more than 100 hectares owned nearly three-quarters of all the land in the world, with the top 0.23 per cent controlling over half.

Many argue that a distinction should be made between two different types of property: things that can be owned privately by individuals and traded, and things that should be held in trust for all. Whatever is created as a result of individual labour using natural resources – the harvests of crops, houses built by wood from the forest, clothes made by spun wool and cotton – is private property. But the land itself, which is of limited supply, ought to be held in trust for the benefit of all people and all generations. Private ownership of limited, particularly essential, resources creates unfair economic advantages, as those who do not own land are forced to pay those who do for access to the resources that they need to survive.

Property speculation tends to inflate prices and exclude poorer people from climbing on to the 'property ladder', which in turn creates a society of two classes of people – the rich that own and the poor that pay them to rent. Meanwhile, pressure to maximise commercial potential means property is often developed as cheaply and profitably as possible, with very little regard to the environmental consequences. Regulations on development are a costly and inefficient method of controlling this problem.[13]

The 19th century economist David Ricardo argued that the unequal distribution of land created imbalances in the economy by depriving capitalists of the rewards of their investments. Profits were almost always absorbed by rising rents paid to landowners who played no active role in production. The loss of the capitalists' profits inevitably filters down to wage-earners, who are deprived of their share of rising profits.

The wealth generated by entrepreneurship is used first to pay the rent, rather than being reinvested to increase employment. During 1995, it was calculated that the collective profits of the world's largest 500 companies rose by 15 per cent to $323bn, while the size of their workforces remained constant.[14] The examples of Hong Kong and Singapore show how much wealth is released when a region unties its capital from the land.

Closing in

Enclosure continues all over the world. The ownership of resources is still moving from the public to the private, so that their use is exclusive and based on the ability to pay. Resources once regarded as inalienable are becoming commodified. Systems of tenure once operated on ecological principles, stable community values and democratic distribution, are being rapidly replaced by the commercial imperatives of the bottom line.

The enclosure of the land continues in many of the poorer countries of the world, where mining or logging rights are sold, often below market prices, for private development. Many companies are making use of these resources while paying a fraction of the taxes which domestic businesses pay. And because of this 'race to the bottom', poor countries are forced to engage in to attract inward investment.

But the commons also include less tangible public assets. Our civic institutions, broadcast airwaves, public spaces, forums and services, our government research and development programmes and databases, schools, hospitals are all under siege from private interests. And, as we shall see, it extends to the intellectual commons, which is being cordoned off by an increasingly labyrinthine array of patents and copyrights.

Enclosure has traditionally been promoted as a source of increased productivity and economic efficiency, by providing incentives to development. But this may be a short-term view. Many argue that the private gains made from stretching margins come at the expense of a permanent loss to the public good. Accountability is privatised along with decision-making.

Carving up the Land – the Mapuche Indians of Chile

The illegal seizure of land belonging to indigenous people is nothing new in the Americas. In fact, it has been going on for more than five centuries. But although, in most of North America, settlements of various degrees of adequacy have been reached with most of the Indian populations, the claims of the Indians of Latin America continue to go largely unheard.

In Tenucho, southern Chile, the Mapuche Indians have been fighting for the rights to their land against the encroachments of private companies. The conflict reached a new level of urgency, however, when the government waved ahead plans allowing the construction of the Southern Coastal Road and the Ralko hydroelectric dam on the BioBio river. There are serious concerns that the highway will bulldoze its way through thousands of homes, religious sites and cemeteries, causing devastating cultural, economic and environmental upheaval.

For the Mapuche, this is the last in a long line of depredations of their territory. Families have been evicted from their homes in the name of development and the common good.[15] The ecological balance of the region is under threat along with their ancient way of life. They have seen mass deforestation by timber companies carrying out their work without the Mapuche's permission in violation of the current Indian Law.[16] They are already demanding the return of an estimated 50 per cent of the land in the region owned by the timber companies, amounting to some 1.2m acres.[17]

The Mapuche once occupied a quarter of the land now comprising the republic of Chile. The Spanish Conquistadors agreed in the 16th century that they could have access to Mapuche lands but only with their agreement. But independence from Spain brought more conflict and the Pacification of Araucania, a settlement with the new republican government signed in 1881, saw the Mapuche territory dwindle to about six per cent of its original size.

Salvador Allende's government pledged the return of 740,000 acres in the early 1970s as part of its programme of agrarian reform.[18] But following the 1973 coup, General Pinochet took the land back and sold it to the forestry companies at low prices. In 1979, Pinochet passed a law allowing the Mapuche to lease land individually, undermining its traditional communal organization. Construction and

- The richest 10 per cent of Americans own 60-65 per cent of private land by value. By area, it is estimated that three per cent of the population owns 95 per cent of the privately owned land in the USA.
- In Brazil, the wealthiest one per cent of the population holds title to half the land.
- In 1999, the richest 20 per cent of the US population earned 55 per cent of the income and owned 80 per cent of the nation's wealth. The richest one per cent of US citizens possessed greater wealth than the bottom 90 per cent.
- The world's three richest people have assets greater than the combined gross domestic product of the 48 poorest countries.
- In 1960, the poorest 20 per cent of the world's population earned five per cent of the income. By 1990, the share of the poorest had fallen to 1.3 per cent, and the richest fifth was earning 85 per cent of the world's income.
- A fifth of the world's population is consuming four-fifths of all the resources consumed annually, many of which are non-renewable.

Source: A. Hartzok

timber companies moved in once again to take up long leases at knockdown prices.

The government is backing the return of small pieces of land, provided the claim is backed with legal documentation. The trouble is that most legal titles were destroyed under the military dictatorship. In their absence, the Mapuche are being accused of seizing land illegally and have clashed with the police, leading to the detention of more than 1,000 of their people.

They are demanding recognition under Convention 169 of the International Labour Organisation, which would give them the basic rights of indigenous people, including to rights to land, use of resources, the right to self-determination and the removal of the central judiciary.

The Committee on the Elimination of Racial Discrimination has backed the Mapuche, and has condemned the systematic appropriation of indigenous people's land by multinational companies and the violation of human rights by the government.[19] The government now claims to be fighting discrimination against the Mapuche Indians. But forestry products are Chile's second largest export, and the government is under severe pressure to guarantee the investments of the timber companies. Justice still seems a long way off.

The drive to privatise

The privatisation of state-owned enterprises has been going on to some extent since the 1950s. But it was only in the 1980s that this process was stepped up as part of the global project of economic deregulation, developed by World Bank and the International Monetary Fund in response to the emerging market debt crisis of the late 1970s and early 1980s.

Initially, it was recommended that "privatisation in some non-strategic and industrial, agricultural and service sectors can make a positive contribution to economic development". But according to a report from International Public Services, the international federation of public sector trade unions, the process has since gone a lot further than this. The spread of privatisation to utilities, infrastructure and core public services, such as healthcare and education, has been far more contentious because of their important strategic economic and social roles.[20]

The PSI blames this development on four factors: globalisation and the massive expansion of transnational companies and foreign debt, technological developments, problems in public sector management, and ideological pressures.

But the dogmatic insistence on the virtues of privatisation as a cure for all economic ills is beginning to sound a little hollow. A series of recent privatisations have shown consistent failures in the same areas. A research programme at Oxford University, led by former World Bank economist Percy Mistry, concluded that "the somewhat ambitious claims made for privatisation need to be scaled down" and that privatisation could even be "counter-productive, especially in smaller developing countries".[21]

Privatisation and its discontents

Privatisation brings its own problems. It can mean creating private monopolies, leaving companies the same power over the market but without the same responsibilities. This can trigger hikes in consumer tariffs and a deterioration in the quality of services. Low income areas, where private companies can make little or no profit, start losing even the most basic services.

In many countries, companies are backed by profit guarantees, so that some countries are forced to buy water in bulk, for example, whatever future demand. In others, multinational companies can drain a country's resources by using the cash raised by price hikes to subsidise speculative developments in another, richer country.

The Johannesburg Summit, the tenth anniversary of the Earth Summit, produced two types of official agreements: 'Type-I' outcomes, which are the traditional

action documents negotiated between governments, and 'Type-II' outcomes, which are essentially partnership agreements between different stakeholder participants to work on a particular project. Although Type II agreements have been hyped as providing the best means for achieving sustainable development, they have also been seriously criticised.

The concern is that Type-II outcomes let governments avoid setting out binding, timetabled agreements to meet sustainable development targets. Because the private sector has been identified as the primary source of 'innovative financing' for such projects, there is also a danger that the kind of initiatives likely to emerge will reflect a business-as-usual bias, and that they will fail to produce radical solutions that might address the current social and environmental challenges.

This concern is reinforced by the fact that the Commission on Sustainable Development, charged with granting official UN endorsement to Type-II outcomes, will not have the capacity to give the likely volume of applications sufficient attention. Nor will they have a stringent set of criteria on which to assess the proposals.

Sceptics have also observed that engaging in partnerships like these allows corporations to soften their public image, and to divert the agenda of sustainable development away from key issues such as the need for mandatory international codes of conduct on corporate social responsibility. It has also been claimed that some corporations have moved beyond simple 'greenwashing' of public perception, and are now actively 'engineering' agreement about what constitutes sustainable development.

Crucially, many NGOs fear that partnerships with business will not be conducted on an even footing, as corporations will exercise their larger economic clout to drive the multi-stakeholder dialogue process. This fear was compounded by the sense that WSSD would be heavily oriented towards promoting deregulation of markets through the WTO Doha agenda and the privatisation of public services.

The executive director of UNEP, Klaus Topfer, warned that Type-II outcomes threatened to turn the WSSD into the "privatisation of sustainable development". The lack of political will to drive through agreements that genuinely address the challenges of sustainable development is also reflected in the absence of text in the official WSSD documentation calling for water to be kept in public hands in developing countries. This is despite mounting evidence that shows that water privatisation in these countries often runs contrary to the principles of sustainable development. Several problems emerge:

- *Negotiation of contracts:* A government or municipality will negotiate a water privatisation contract once, and developing country governments lack the legal and technical expertise to work out the complexities of deals over a lengthy period of time. Companies like Vivendi and Suez Lyonnaise, on the other hand, have negotiated hundreds of these deals, and have a vastly experienced legal and technical machinery at their disposal. They can often run rings around government authorities when drawing up privatisation contracts. This is especially significant given the length of most water provision contracts, which are often set for 20-30 years. This allows them to set prices low at the outset, but raise prices over time to meet profit targets .

- *The myth of greater efficiency:* Cheaper pricing through greater efficiency is one of the main arguments for privatisation of water. But like other utilities, water tends to operate as a natural monopoly, which means that market mechanisms do not function as they do in other sectors of the economy. There is therefore little evidence to suggest that privatisation brings greater efficiency. Indeed, the heavily privatised UK water sector still reports over 30 per cent unaccounted water through leakage, while public providers in the Netherlands, Denmark and Sweden record just five to six per cent losses. Similarly, when Mynilad took over the Manila water concession in 1997, non-revenue water – water lost through inefficient delivery – was 65 per cent: five years into the private service contract, this figure had actually got worse,

- Privatisation of the electric utilities in the former Soviet republic of Georgia saw energy tariffs rise by nearly 240 per cent to about a fifth of the average family income.

- In the Czech Republic, a subsidiary of the UK's Anglian Water used its regional monopoly to raise water rates by 100.7 per cent between 1994 and 1997, nearly double the national average.

- In Tucuman, Argentina, a subsidiary of French company Vivendi doubled tariffs in 1995 while still failing to deliver on its investment programme – the water actually turned brown. Customers refused to pay their bills, at which point the company pulled out of its contract and later filed a $100m against the government.

- In December 1999, the UK company Biwater pulled out of a major water supply project in Zimbabwe because it could not deliver the rate of return demanded by private investors.

Sources: World Bank, (2001) 'PRSPs and the Environment'; Public Services International, 'Paying for Privatisation: higher prices, lower employment' and 'Distorted Development Priorities'

reaching 67 per cent.

- *Pricing out the poor :* Charges introduced for water after privatisation in developing countries have proved to be an enormous burden on the poor. There is also a danger that private companies will fail to provide for poorer, more remote communities in rural areas, where costs of provision are relatively higher, yet people have little capacity to pay for water. When water is provided publicly, the government is often able to cross-subsidise income from wealthier urban consumers to supply water to poor rural areas. Even the World Bank, one of the greatest proponents of water privatisation, admitted that water in Haiti's capital Port-au-Prince costs up to 10 times as much from the private sector as it does from the public supply, and that poor families in Mauritania now have to spend a fifth of their household income on water.

Environmental costs

The environmental costs of privatisation are spiralling out of control. Water privatisation, in particular, has caused increased pollution as expenditure on safety is cut to maximise profits. There has also been a tendency to abstract and consume more water than a region needs in order to increase sales.

Every single UK water company has been convicted of pollution offences. Between 1989 and 1997, there were over 250 convictions for pollution incidents.[22] In 1994, Vivendi's Generale des Eaux was convicted for supplying water for a year and a half that was unfit for consumption due to excessive nitrates and pesticides.[23] Essex & Suffolk Water, a subsidiary of Suez-Lyonnaise des Eaux, admitted to 27 charges of illegal extraction and asked for a further 233 charges to be considered.[24] While in Georgia, the inability of the poor to pay for electricity led to increased demand for wood.[25]

It is hard to estimate the number of job losses and the value of pay cuts caused by privatisation. Around 70,000 local government jobs have been lost in the UK as result of contracting-out and competitive tendering, while trade unions in Argentina have put job losses as a result of privatisation at 200,000. A heavy engineering plant in Russia cut employment from 70,000 to 20,000 as a result of privatisation.[26]

As well as opening up a long-term underclass of the unemployed, job losses on this scale increases welfare costs in those countries which have a welfare state. In others, it simply creates mass poverty. This is not efficient in the long term, because all companies – domestic and foreign – need nations of consumers, not paupers. The result of these imbalances of power tends to be the privatisation of profit, but the nationalisation of costs.

Corruption

Privatisation has repeatedly been linked to corruption, as political leaders cheerfully line their pockets with kick-backs from competing multinationals. The World Bank acknowledged as much in a report of 1996, which revealed that "a firm may pay to be included in the list of qualified bidders or to restrict their number. It may pay to obtain a low assessment of the public property to be leased or sold off, or to be favoured in the selection process…Firms that make payoffs may expect not only to win the contract or the privatisation auction, but also to obtain inefficient subsidies, monopoly benefits, and regulatory laxness in the future".[27]

A dozen multinationals from the UK, France, Italy, Germany, Canada, Sweden and Switzerland were prosecuted for paying bribes to obtain contracts in the Lesotho Highlands Project, a large water supply project in Africa.

The OECD sponsored a global convention endorsed by 34 major exporting countries. It laid out rules to punish companies engaged in international bribery. Each countries has to pass a law making bribery abroad a criminal offence. When Britain failed to introduce legislation after signing the convention in December 1997, it was subjected to intense criticism from the USA and the OECD itself.

Uncharted waters: Privatisation and the water industry in Bolivia

In the late 1990s, the Bolivian government signed an agreement with the World Bank to sell off the country's public services as part of a programme of reforms carried out in the name of economic efficiency. In late 1999, the water supply of Cochabamba, Bolivia's third-largest city, was auctioned off to Aguas de Tunari, a subsidiary of the British company International Water Ltd, itself a part of the San Francisco-based Bechtel Corp.

Almost immediately after privatisation, water bills for the cities residents tripled. For thousands of families, the rate hike meant up to half their monthly income went to paying for water. In February and March 2000, protestors took to the streets to call for the renationalisation of the water supplies. Police were sent in, and riots broke out. Leaders of the protest were arrested, and their houses broken into by police.

As protests spread, violent clashes increased. Dozens were injured and six people killed. The governor of Cochambamba tried to get the government to cancel the contract, and resigned when his request was confused. President Banzer introduced martial law to quell the unrest rippling through the country, during which time civil liberties were suspended. Eventually, on April 10, President Banzer conceded and announced the termination of the contract between Bolivia and Aguas del Tunari.

Source: PBS Frontline World, 'Leasing the Rain', June 2002

Susan Hawley is an expert on corruption working for the UK organisation Cornerhouse. Following a two-year investigation into the UK's export promotion agency, the Export Credit Guarantee Department (ECGD), she concluded that: "The ECGD has been pervaded by an institutional culture of negligence when it comes to corruption. Given the sectors and countries that the ECGD works in, this institutional culture is disturbing.

Throughout the 1990s and into the early 2000s, the ECGD consistently supported projects which were over-priced and plagued by corruption allegations, from dams such as the Lesotho Highlands Water Project to power plants such as the Dabhol Power Plant in India. In some instances it gave or continued backing despite knowing about these allegations. In most instances, it revealed a deep reluctance to investigate such allegations or pass them on to the relevant UK or local authorities."

She added that: "In late 2000, the ECGD brought in new measures to combat corruption, and committed itself to full implementation of the OECD Convention on Combating Bribery." Though welcoming the move, Hawley was highly sceptical: "A new warranty procedure introduced by the ECGD, for instance, requires companies to state that they have not engaged in bribery. However, this warranty is virtually unenforceable. The ECGD claims that it does not have investigatory powers and therefore passes all allegations onto the Serious Fraud Office (SFO). However, of the seven corruption allegations that the ECGD has received in as many years, it has only ever referred one to the SFO."

The rich are getting richer, the poor are getting poorer

Private companies operating in areas sensitive to the public interest time and again have been shown to be incapable of putting the public before profits. There are rarely legal frameworks to ensure that they do so. Too many interests means too little accountability and too little co-ordination. Local people are too often left out of the process of making decisions about resources extracted from their region.

It is shareholders, the rich and powerful, that are the main beneficiaries from privatisation. The World Bank reported that, following the sell-off of the Mexican telecommunications company Telmex, foreign shareholders are thought to have made $12bn from raised tariffs that cost the Mexican consumer $33bn.[28]

There is a growing fear that the massive profits of multinationals is concentrating power so much that they dwarf the nation states and municipalities that do business with them.

Despite the abundance of evidence to the contrary, the World Bank – alone among international authorities – continues to believe that private ownership and management are intrinsically more efficient than public enterprises. They continue to impose that ideology in exchange for debt in Asia, Africa, Latin America, and central and eastern Europe.[29]

Global commons

The concept of the 'global commons' is a relatively new one. It emerged from an increasing awareness of the devastating effects of unrestricted exploitation of global public resources. Although the atmosphere and the oceans are open to use and abuse by all, the environmental consequences do not necessarily occur in the same part of the world as the pollution. This raised serious questions about their distribution and preservation.

The Club of Rome Reports of the 1970s first raised the spectre of the global environment under threat. It was followed by the Brundtland's *Our Common Future*, which defined the main global environmental problems and offered some suggestions as to how they might be approached: *"Humanity's inability to fit its doings into that pattern [of global environmental processes] is changing planetary systems fundamentally. Many changes are accompanied by life-threatening hazards. This new reality, from which there is no escape, must be recognised - and managed."* [30]

1473: Venetian Patent Ordinance

Although there is evidence of law granting patent-like status to silk production in Italy as early as 1200s, this more general ordinance is the first real legislative attempt to allow inventors to maintain monopoly control over their devices or methods. It was intended to entice inventors to relocate to Venice.

1790: United States Patent Act

The first US patent act.

1883: Paris Convention for the Protection of Intellectual Property (IP)

The rights of patent protection filed by a person in one member country are also now legally upheld in all other member countries.

This essentially paves the way for the standardisation of IP law that is found in modern WIPO and WTO TRIPS agreements.

1922 - present

This period sees the development of institutions of modern IP law, such as the World Intellectual Property Organisation (WIPO). The trend in legislation of modern IP law is to provide frameworks for the standardisation of global copyright and patent protection.

1974

The WIPO becomes attached to the United Nations. The body is charged with the registration and administration of IP, assisting co-operation

The plight of the global commons was duly acknowledged and discussions were opened by world leaders at the Earth Summit in Rio 1992. But the solutions that were adopted reflected concerns that treating global environmental problems was likely to have negative impacts on crude economic growth, the over-riding concern of policy makers. They were limited to the managerial and the institutional rather than the moral and the political.

"The objective of the Summit's major power brokers was not to constrain or restructure capitalist economies and practices to help save the rapidly deteriorating ecological commons, but rather to restructure the commons (e.g. privatise, 'develop', 'make more efficient', 'valorise', 'get the price right') to accommodate crisis-ridden capitalism."

Michael Goldman, 1998[31]

A World Bank report by Bromley and Cernea in 1989 pitched the idea that the management of natural resources may be linked to how they were owned, and recommended that the World Bank should deal with the economic and sociological questions of tenurial systems governing resources.[32] But since then, genuinely alternative and appropriate property regimes have not been forthcoming, although some attempts have been made to regulate or limit the use and exploitation of the global commons.

International conventions have proliferated, but the international community has failed to take the step of declaring the global commons a heritage endowed to us all – or to contemplate innovative ways of establishing the collective stewardship over natural resources. Consequently, these treaties have proved too weak to ensure a real solution to the destruction of the global commons.

The irresistible rise of intellectual property

"If nature has made any one thing less susceptible than all others of exclusive property, it is the action of the thinking power called an idea…No one possesses the less, because every other possess the whole of it. He who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at mine, receives light without darkening me."

Thomas Jefferson

In the 6th century AD, a priest called Colum Cille, later to become St Columba famous for establishing an early Christian outpost on the island of Iona off the west coast of Scotland, made a copy of the Psalter of St Jerome. He did it without the permission of its owner St Finnian of Moville committing perhaps the first recorded incident of copywrite infringement.

Perhaps the most drastic expansion of ownership rights has been in the more recent wave of privatising knowledge in the form of intellectual property rights. Formal intellectual property rights (IPRs) have existed since 1473. Over the centuries, governments have used them as a tool for balancing the conflicting needs of stimulating innovation by offering inventors rights of exclusive exploitation of their work, and opening up to society as a whole the benefits of scientific knowledge and technological progress.

But within the last 20 years, we have seen an unprecedented surge in the applications for, and granting of, IP and for patent protection in particular. In 2001 alone, the US Patent and Trademark Office granted almost 184,000 patents.[33] This can partly be explained by the growth in the value of knowledge relative to other assets. But it is also due to the patenting of 'inventions' that were previously thought to be unpatentable. Computer software, internet business methods, and genetic engineering have all been enclosed in this way in recent years.[34]

The USA has been leading the way in this expansion of the criteria for protection. The communications revolution has served as a catalyst and pretext for launching a general round of IP law revision beginning in 1976 with the revision of the US Copyright Act.[35] US laws on intellectual property protection gained global reach with the introduction of the GATT/WTO Agreement on the Trade-Related Aspects of Intellectual Property Rights (TRIPS) in 1994.

between member states, and standardising IP laws worldwide.

1980

US Supreme Court upholds the patentability of a genetically modified bacterium, quoting the Congressional report leading up to the 1952 Act that "anything made by man under the sun" should be patentable.

1984

US succeeds in causing inclusion of intellectual property issues in Uruguay Round of GATT negotiations.

1994

Uruguay Round of negotiations concludes TRIPS and thereby includes international enforceable minimum standards for patent protection.

1998

US Court of Appeals for the Federal Circuit upholds that there is no prohibition in principle on patents for business methods.

Source: The Centre for the Public Domain

Background to TRIPS

- TRIPS was signed in 1994 as part of the GATT Uruguay Round agreements.
- It sets out universal minimal standards of property rights for the protection of seven categories of intellectual property: patents, copyrights, trademarks, geographical indications, industrial designs, *sui generis* protection for integrated circuits, and trade secrets. The most controversial of these are the provisions relating to patents.
- The agreement sets out obligations requiring minimum standards of protection, and incorporates WTO principles and the WTO Dispute Settlement Mechanism.
- The agreement is controversial not just because of its scope and focus, but also because of the interests it serves and the questions of national sovereignty it raises. It was US corporations, through the US delegation, that pushed for TRIPS, claiming that the lack of international IP standards posed difficulties for the global exploitation of their intellectual assets. They claimed losses from piracy of $43-60 billion. Trading powers were thus used to bargain for international standards of IP protection.[1]
- That GATT/WTO should have jurisdiction in this arena has been questioned. Their focus previously had been the regulation and promotion of international trade in manufactured goods.
- In setting universal minimum standards, member states lost their historic right to legislate their own IP law and thus to balance monopolistic private interests against perceived national interests.
- Many developing countries will now have to provide intellectual property rights in all areas of technology for the first time, and on products and technologies – such as pharmaceutical products, agrochemicals, and biotechnological products and processes – that have previously been excluded from their IP regimes.
- One of the most controversial provisions of TRIPS is the obligation (Article 27.3b) to provide patent protection to inventors of micro-organisms, microbiological processes and products, and that plant varieties must be either patentable or subject to an '*effective sui generis system*'. This brings into question issues of the commoditisation of nature, the legal redefinition of living organisms as patentable inventions and the implications on ways of exchanging and circulating genetic material.

Sources: Noiville, C. (1996), 'Patenting Life – trends in the US and Europe'; Baumann, M, Bell, J., Keochlin, F., & Pimbert, M. (eds) (1996), 'The Life Industry. Biodiversity, People and Profits.'; Fowler, C. (1995), 'Biotechnology, Patents and the Third World', Shiva, V. & Moser, I. (eds) (1995), 'Biopolitics. A Feminist and Ecological Reader on Biotechnology'

Opposition to the new enclosures

There have been many objections to the expansion of intellectual property, the ownership rights it conveys, and the kinds of wealth it creates. Some argue that there is now too much protection. Set at 20 years for all inventions, patent duration does not differentiate between the incentives needed to invest in different kinds of technologies and hence the value of the monopoly in comparison with the work involved.[36] It might therefore be appropriate to scrap the one-size-fits all system, and replace it with one that responds to the investment that an invention represents".[37]

It is also claimed that patents are actually blocking innovation.[38] In the software industry, companies are being left hamstrung as resources that could be used for research and development are wasted on legal gamesmanship, in which companies battle over complex cross-patent licensing deals. The proliferation of patents means that innovative systems-builders are forced to ask for permission every time they want to develop a product. The internet, on the other hand, which was developed with very few of these restraints, has astonished the world with the pace of its up-take and expansion. Excessive protection of IP in the end can undermine free competition, the pillar on which the market is built.[39]

Corporations have mobilised behind the revision of IP law, and in doing so have strengthened it in the rights-holders' favour. They have succeeded in extending the period of protection – creating new intellectual property rights, like, for example, the *sui generis* right that protects the construction of databases from existing information (hardly an invention). They have also raised statutory exceptions (like the fair use of protected works), calling into question the established benefits for users – as in public libraries.[40]

The result is that culture is being commercialised in an unprecedented way. The Olympics Committee has claimed property rights in reporting sporting events, tables of results and the real-time diaries of athletes. Stock quotas, football scores and other compilations of facts could be the next to be drawn inside property regulations. Meanwhile, Disney is busy privatising folk stories like Snow White. Parades, city festivals, metro stations and theatres are all being rebranded by the private sector.

Monopolies can exploit the system as it stands, [41] but in many ways the system seems to have already got out of hand. Many ideas and technologies – business methods and plant varieties, for example – may just not be appropriate as property. Rights over plant varieties could, for example, threaten agricultural diversity, livelihoods and food security, not to mention the ethics of patenting life forms.

This expansion has led to changing business attitudes, so that IP is being used as a weapon for attack as well as for defence.[42] Intellectual property rights have not only become crucial to building the capital values of companies, in order to boost revenue through licensing, but are also being used to colonise embryonic areas of technology through 'strategic patenting'. Companies no longer even have to make – or even be able to make – the product, so long as they can describe it plausibly. The existence of patent factories such as Walker Digital[43] - companies that produce nothing but patents – is testimony to a ludicrous situation.

So the free circulation of ideas envisioned by Jefferson has long ceased to be reality. In a broad range of fields, the knowledge that should be free and shared is being fenced off into private preserves. The endless examples of the private protection of public information – be it national databases, genetic resources or traditional knowledge – is a "sign of the changing balance of power between countries (net exporters or importers of intellectual products) and between social groups with divergent interests (shareholders, teachers, educators, scientific researchers, users)," according to an article in *Le Monde*. "Thought must, therefore, be given to the concept of 'general interest' if intellectual property rights are not to be turned to the benefit of dominant groups alone."[44]

Unfortunately, that process is already in full swing. The result, says the Centre for the Public Domain, is that the vitality of artistic creativity, academic research, technological innovation, and our democratic culture are threatened and the very legal regimes intended to foster innovation, creativity, competition and public access to knowledge are in fact frequently stifling them.[45]

Patenting and genetic engineering

Patenting in genetic engineering has seen particularly rapid growth in recent years. There has been a court-led expansion of the traditional meaning of 'invention' to enable new discoveries and methods of biotechnology to meet the 'inventive' step required for a patent.[46]

Patent statistics

- There are more than 4m patents in force in the world today, and every year applications are filed for a further 700,000 inventions.
- The overall number of applications for patents increased by 34.6 per cent a year between 1999 and 2000, to a total amount of 9,795,173.
- The number of applications in the biochemistry, genetic engineering field grew by 23.4 between 1999 and 2000, second only to computing which grew by 27.9 per cent.
- The distribution of patent applications in 1997 was as follows:

  High-income countries: 2,785,420

  East Asia and the Pacific: 290,630,

  Middle East and North Africa: 1,716,

  Sub-Saharan Africa: 392,959 (only 38 of which filed by residents).

Sources: EPO, 'Facts and Figures 2000; WIPO (2000), 'Broad Summary of Patents Figures'; Commission on Human Rights – Sub-Commission on the Promotion and Protection of Humaman Rights (2001), 'Economic, Social and Cultural Rights, The Impact of the Agreement on Trade-Related Aspects on Intellectual Property Rights on Human Rights', E/CN.4/Sub.2/2001/13 27.06.01

Establishing the use of a natural resource in the past was considered a mere discovery, but the contribution of nature is no longer – according to IP law – more important than human intervention.

The distinction between property rights on genetic material on the one hand, and intellectual property rights on the raw and processed genetic and biochemical information of genetic resources on the other, was first acknowledged in 1980 by the US Court of Customs and Appeals in cases involving modified bacteria. It held that although a patent could not be claimed for natural products *per se*, they could be claimed for any new form or composition of that product – thus blurring the distinction between discovery and invention.[47] Since then, there has been a flood of increasingly expansive patents on life forms. There are now patents such as the Plant Genetic Services patent on "all transgenic plants containing the Bt gene".[48] Nine patents exist for genes that determine the eyeball, 40 on those of the heart and 152 on a single grain of rice.[49]

Biotechnology companies claim that the engineering of plant genetic resources is needed to continue feeding the world and to help the poorest people combat nutritional disease. Yet the patenting of seeds and plant varieties has merely expanded the market control of chemical, seed and biotechnology companies, without reducing starvation and malnutrition around the world. It may also be inhibiting research by increasing costs, limiting the availability of scientific knowledge, threatening the livelihoods of farmers and by prohibiting them from saving, exchanging and re-sowing seeds.

Some principles of social responsibility were maintained in the property rights governing the map of human life. Under the 1996 Bermuda Agreement, partners agreed not to patent any of the sequences determined in the project to unfold the human genome, but instead to deposit them in a public database. The information would then be freely available to the scientific community and hence beyond the reach of commercialisation and patenting.[50]

There were several principles underlying this decision:[51]

- That genome sequencing should belong freely available to all humankind.
- That the swift advancement of knowledge and application of gene information to health problems should involve unimpeded scientific rivalry and collaboration.
- That a holistic view to the analysis of genes should be taken.[52]

But not all the players in the Human Genome Project have taken this ethical approach. Research companies in the private sector, such as Celera, Incyte and Human Genome Sciences, had always planned to make their data available to paying customers only.[53]

The result is that the ownership of knowledge about ourselves is being privatised, an issue which should be subject to an extensive debate that is failing to take place.[54] Many believe that gene science should be the common property of everyone and that public interest should at least be built into its regulation.[55] "At a time when the sober assessment and understanding of scientific findings has never been more important, the scientific community needs to restore, not lessen, its legitimate standing with the public. Above all this means ensuring its independence from corporate interests and politicians."[56]

Biopiracy

"Genes are the 'green gold' of the 21st century…Except that it is no longer a question of having absolute control over the mining of minerals or the operation of trade networks, but over genetic heritage itself. What once seemed to be a mad ambition is a real possibility now that living things can be patented." [57]

Le Monde, 1999

Patenting genetic resources has been described as "committing daylight robbery

Myths of intellectual property

- Intellectual property is not the old, worldwide concept it is claimed to be. Nor does it have worldwide acceptance because the USA is regarded as attempting to capitalise on the technological lead it commands in so many fields.
- People can produce original work in its absence: "Man created for millennia before the advent of intellectual property; he will create for many more millennia after it is abandoned."
- IP is not essential for 'best' creators to work: "Shakespeare, Plato, Confucius, Hero, Chaucer, Handel, and many others of the finest names in world literature, music, art, and invention worked in an environment free of intellectual property restrictions. Clearly, genius does not require copyright to produce."
- Removing intellectual property rights would not deny creators the right to profit from their labours. But it would allow all of society to share in the benefits of their work.
- IP does not follow directly from the notion of physical property. There is no necessary logical reason why information has to be treated like an object.

Sources: Shulman, S. "It's Time For 'IP-Free' Zones", IP Matters, August 2000; Centre for the Public Domain

on the common property of humanity".[58] A UN study calculated that if a royalty was charged on biological diversity developed by local innovators in the South, the North would owe over $300 million in unpaid royalties for farmers' crop seeds and over $5 billion in unpaid royalties for medicinal plants.[59]

Protection and ownership rights are for some but not for others. Organisms pre-existing in nature are not in themselves patentable. Intellectual property law is now, however, constructed such that it is the human intervention in isolating, purifying or applying the genetic material of organisms that qualifies it for protection.

IP law, as such, fails to reward public domain activities and informal innovation. Local and indigenous knowledge are not recognised within conventional systems of IP protection because systems like TRIPS generally promote individual property rights. Knowledge and innovations that take place in the intellectual commons are excluded. As traditional knowledge is largely collective and held by many communities in parallel, it therefore falls outside the scope of protection.[60] Traditional knowledge generally evolves over long periods of time and so does not fulfil the IP criteria requirements of novelty and sudden inventiveness.[61]

TRIPS also only confers IP protection when knowledge and innovation have industrial application. The creativity of informal community innovations, which are not made with profit in mind, but are designed to meet social needs, are not protected.[62]

These kinds of distinctions, say commentators, have been set up principally to accommodate the biotechnology industry and pronounce a bias towards the capital and high-tech portfolios of the developed countries.[63] They reflect the fact that, despite the bulk of the world's genetic wealth being found in developing countries, nearly all the world's biotechnology patent rights are held by developed countries.[64]

"There is no epistemological justification for treating some germplasm as valueless and part of common heritage, and other germplasm as a valuable commodity and private property. The distinction is not based on the nature of the germplasm, but on the nature of political and economic power."

Vandana Shiva

Local farmers have traditionally been considered the stewards of seeds and the keepers of biodiversity, but the alienation of rights brought about by intellectual property rights undermines the stake they have in the conservation and sustainable use of genetic resources.[65] Developing countries have discovered that their traditional knowledge on biological materials is being exploited and used as the basis for predatory patents usurping local knowledge.[66]

They say this is biopiracy:[67] *"Thousands of so-called land races or primitive varieties were brought from Southern fields to Northern genebanks without any compensation, whereas the final products of 'scientific breeding' returned to Southern markets as commodities that had to be paid for in hard (i.e. US dollars) currency."*[68]

In many cases, patents have been granted where no improvements have been made: "It is the intervention of technology that determines the claim to their exclusive use. The possession of this technology, then becomes the reason for ownership by corporations, and for the simultaneous dispossession and disenfranchisement of farmers."[69]

Biopiracy relies on claims of novelty and invention, when the knowledge has been long evolving as part of the collective and intellectual heritage of an individual community, multiple communities or even a country as a whole. By handing over scarce biological resources to the monopoly control of corporations, patents deprive poor countries of access to public domain genetic resources. By removing local varieties from communal ownership the original innovators are deprived of the benefits of their use and can be excluded from their rightful share to local, national and global markets.[70]

Patents upon patents

Public and private sector agricultural researchers are limited in their freedom to operate due to the complex string of intellectual property rights claims and legal barriers on germplasm. In August 2000, Monsanto announced that it would allow use of its patent licenses on genetically modified 'golden rice' free of charge. Monsanto owns one of the 72 patents on the technologies in needed for its development. The use of the rice will therefore depend on the other patent holders also waiving their rights. This will take time.

The test case of Monsanto vs Percy Schmeiser

In March 2001, a judge ordered a Canadian farmer to pay the biotechnology giant Monsanto thousands of dollars because the company's genetically engineered canola plants were found growing on his field, apparently after pollen from modified plants had blown onto his property from nearby farms. Dozens of similar lawsuits have been filed against farmers around the United States, but the Canadian case is the first to go to trial. "I've been using my own seed for years, and now farmers like me are being told we can't do that any more if our neighbours are growing [genetically modified] crops that blow in," said Percy Schmeiser. "Basically, the right to use our own seed has been taken away."

In his ruling, federal Judge Andrew MacKay concluded that a farmer does not have the right to grow crops with a patented and genetically modified gene unless he has an agreement with the company that owns the patent. MacKay also ruled that it didn't matter whether the farmer took advantage of the patented gene. In this case, Schmeiser did not.

Margaret Mellon, Director of the Agriculture and Biotechnology Programme of the Union of Concerned Scientists, said: "This means that people who are in the neighbourhood of genetically modified crops will have to pay royalties to the companies for products they never purchased and got no benefits from." Schmeiser is now prohibited from using his seed again and must pay Monsanto about $10,000 for its user fees and up to $75,000 in profits from his 1998 crop.

A small victory was won in May 2003 as the Supreme Court of Canada confirmed that it will hear his appeal. The outcome of this development is yet to be seen, but it represents hope for Schmeiser and countless other farmers who are legally challenged by Monsanto.

Sources: Marquis, C (2000), 'Monsanto plan to offer rights to its Altered-Rights Technology', Sustain; Kaufman, M, 'Farmer liable for growing biotech crops. Court says Canadian used company's plants', Washington Post, 30.03.01; Council of Canadians Press Release, 'A law that punishes the victim and rewards the perpetrator has to be changed', 08.05.03

The free exchange of seeds and other materials for plant reproduction is also at stake,[71] given that 90 per cent of the seeds which create food security for their people are currently exchanged between farmers, not traded by seed companies.[72]

Patenting of staple food crops cannot be far off at this rate. This would threaten centuries of farmers' own crossbreeding, the future development of these varieties and ultimately global food security. "These resources are our 'life insurance' against future adversity, be it from climate change, war, industrial developments or ecosystem collapse," says Patrick Mulvany of ITDG.[73]

Biopiracy has also led to criticisms and doubts about germplasm collection. The fact that genetic resources from international genebanks have been taken and patented in their thousands could hamper enthusiasm for future collections and innovations on the ground. The privatisation of genetic resources could also affect who will benefit from research projects. Intellectual property rights tend to

Basmati rice: the facts

- 8 July 1994 American company RiceTec files a generic patent on Basmati rice lines and grains at the United States Patent and Trademark Office (USPTO) with 20 broad claims designed to create a complete rice monopoly patent which includes planting, harvesting and even cooking. The patent also includes claims that its brands are “similar or superior to basmati”.

- The patent is awarded, creating the potential for RiceTec to successfully block Indian exports to the US on grounds that Basmati from India is a violation of a product protected by an American patent. India’s Basmati rice exports amount to between 400,000 to 500,000 tonnes and are valued at 11.2 billion rupees (three-quarters of total rice exports). The main importers are the Middle East (65%), Europe (20%) and the US (15%). Although the US share is small, RiceTec is trying to establish a market for its basmati in British supermarkets.

- RiceTec Basmati possess the same qualities as those contained in traditional Indian and Pakistani hardly be called ‘novel’ and hence should not be patentable.

- It has been established that the germplasm used by RiceTec to breed its Basmati is of Indian origin. The source has been traced to the genebank at Fort Collins in the US, which has duplicate samples of rice varieties banked at the International Rice Research Institute (IRRI) in the Philippines.

- Basmati is not a generic term and is associated only with a long grain rice of a unique aroma and flavour evolved in the foothills of the Himalayas.

- 27 April 2000, the Indian government filed a petition in the USPTO for re-examination of claims 15-17, which related to grain but did not challenge the other 17 claims which were on the plants, seeds, cultivation method and its progeny.

- September 2000, RiceTec withdraws claims 4 and 15-17. Civil groups continue to ask how there can be a legitimate claim to have invented unique rice seeds, rice plants and rice seeds, if the claim to having invented a unique rice grain has been dropped.

- 27 March 2001, the Citizen’s Movement Against RiceTec prompts the USPTO to initiate a full re-examination of the RiceTec patent.

- 28 April 2001, RiceTec drops claims 1-3, 5-7, 10, 14 and 18-20.

- 14 August 2001, the USPTO strikes down all claims except 8, 9, 11, 12, and 13. It upholds, in these claims, the patentability of the specific varieties bred by RiceTec, namely Texmati, Jasmati and Kasmati [Chef's Originals] (BAS 867, RT 1117 & RT 1121). These can be labelled as "superior basmati rice".

- There are moves to establish the name ‘Basmati’ as a protected geographical indication (GI) under TRIPS.

- Others, such as the Research Foundation for Science, Technology and Ecology claim that although GIs may be relevant to Basmati, they are inadequate to prevent the biopiracy of the majority of medicinal plants and crops and traditional knowledge that exist in India and other Southern countries. For this, says Vandana Shiva: “The patent paradigm needs to change. The WTO made patent laws global. They need to be brought back to national sovereign space. Patents need limits and boundaries. Life form and traditional knowledge cannot be treated as inventions. They need to be excluded from patentability, in India and every other country. Alternative 'sui generis' systems need to be evolved that suit the protection of biodiversity and indigenous knowledge”.

Source: Grain, www.grain.org

provide incentives that will have patentable and profitable outcomes, rather than what may be best for the community at large. Corporate research efforts have already become concentrated into key technologies of interest to the market, which do not address needs of small resource-poor farmers.

Drugs

"Today, and every day, 37,000 people die from preventable diseases because world patent rules price life-saving medicines beyond their reach."[74]

Oxfam

The patenting of essential medicines is particularly contentious. The year 2001 saw two major cases of national governments (South Africa and Brazil) being taken to court over their medicines policies which disregard the IP system, in order to provide life-saving AIDS medicines to their citizens.

Before TRIPs came into force, countries such as India, China and Egypt granted patents on pharmaceutical processes but not on the final products. This allowed generic equivalent medicines to be manufactured locally at much lower costs because they could avoid paying royalties or monopoly prices. In comparison, medicines in neighbouring Pakistan, which accepts patents on products, may be as much as 13 times higher.[75] Indeed, the UNDP Human Development Report 2000 notes that generic production of the HIV treatment flucanazole in India kept the price at $55 for 150mg compared with $697 in Malaysia, $703 in Indonesia, and $817 in the Philippines.[76]

As many as 95 percent of HIV/AIDS sufferers live in developing countries. Brazil and South Africa are committed to a policy of providing free anti-retrovirals (ARVs) to sufferers in their countries. This has been possible because of the local manufacture or importation of cheap generic equivalents which are either not patented in their countries or were patented before TRIPs-compliant laws came into force. This strategy has, in the case of Brazil for example, reduced treatment costs by 70 per cent and enabled the health service to treat three times as many people for the same outlay, saving tens of thousands of lives as a result.[77]

But it will not be possible to resort to generic production of newer drugs, patented after the introduction of TRIPS, and which have an average of 14 years to run until they expire. The pharmaceutical companies that own the patents on these drugs seem unlikely to surrender their rights to the profits on these medicines without legal battles.

The pharmaceutical market is estimated to be worth $6.5 billion a year.[78] Unsurprisingly, therefore, the US government, is taking Brazil to the WTO 'court' on the grounds that its patent law violates international intellectual property law.[79]

Under TRIPs, countries have the right in certain circumstances to produce or import generic equivalents of patented drugs pursuant to national public health policy measures. But it was the South African 1997 Medicines Act – giving the right to circumvent international patent law to implement public health policy law - that prompted the case against South Africa. Likewise, Brazil has threatened that if companies selling patented drugs do not bring down their prices, it will authorise local production. This may not be enough to overcome the US's court action.

In South Africa, the Pharmaceutical Industry Association and 39 of its affiliate pharmaceutical companies were forced to back down. The companies proved unwilling to disclose the true cost of researching drugs, the subsidies they have received from government research and development budgets around the world or the international pricing strategies they employ.

Since then the pharmaceutical companies have agreed to reduce the cost of ARVs to South Africa and discussions have taken place to establish a global differential pricing system whereby the prices of drugs are adjusted to reflect the purchasing power of consumers in developing countries. UN Secretary General Kofi Annan called for a $7-10 billion global fund to help in the battle against

The Enola Bean

- A patent exists on a yellow bean of Mexican origin.
- The owner of the patent, Larry Proctor (President of POD-NERS, a US company), bought the beans in Mexico in 1994 and the US patent was awarded in 1999.
- The bean is to be found at the International Centre for Tropical Agriculture (CIAT, Columbia), one of CGIAR's research centres. Although Larry Proctor did not obtain the bean from CIAT, CGIAR's 1994 trust agreement obliges its research centres to keep all designated crop germplasm in the public domain and off-limits to IP claims.
- As well as this, all 15 of the patent's claims are refuted. It is argued that the novelty and 'non-obviousness' criteria are not met and that the patent ignores the prior art widely available. It is also claimed that an exclusive monopoly should not be granted on a dry bean simply having a seed colour of particular shade of yellow. Indeed, CIAT has 260 bean samples with yellow seeds and six accessions that are "substantially identical" to claims made in the US patent.
- It is also claimed that, given its origin, taking the bean amounts to its misappropriation from Mexico and that this violates provisions of the Convention on Biological Diversity.

HIV/AIDS.

Despite these welcome changes, developing countries are still demanding that the TRIPs regulations are amended to secure their right to affordable medicines and to pursue legally enforceable policies. They should not have to remain at the mercy of company good will and unpredictable hand-outs.

The WTO TRIPs Council has convened a special discussion on intellectual property and access to medicines. Developing countries argued that they should be permitted to take advantage of provisions in the TRIPs agreement that allow for the implementation of public health policy measures, but that they may also want to modify the agreement to make it more flexible.[80]

These demands are being contested by richer countries, especially the USA and Switzerland, with support from Australia, Canada and Japan. The chances of these countries agreeing to any of the amendments at the WTO meeting in Qatar in November are small.[81] If the 52 countries hoping for fairer patent rules are not successful, the northern-based companies – owning 90 percent of pharmaceutical patents – will be allowed to continue their business much as before.

"Penicillin, the first modern wonder drug, wasn't patented. When Alexander Fleming invented it at St Mary's Hospital in London in 1928, the government decided that something of such great benefit to the world should not be a monopoly… 95 per cent of the World Health Organisation's list of essential medicines are no longer covered by patents. However, new remedies being developed for diseases such as malaria and TB are patented."

The Guardian[82]

The 'costs' of these patents are by no means limited to the higher cost of the drugs, or even the human toll of being unable to access the medicines available to prolong life and alleviate suffering. Pricing these drugs out of the range of the majority of HIV sufferers in the developing world has disastrous economic consequences that are arguably frustrating efforts at development in those countries.

Some sources estimate that Africa's income growth per capita has been more than halved by the loss of productive labour, skills and social capital due to AIDS.[83] Especially hard hit countries like Malawi and Uganda can expect to lose 10-16 per cent of their labour force by 2005 – this in nations where a recent ILO study found that fewer than 40 per cent of employers feel they could replace a skilled worker.

- A lawsuit against 15 small bean seed companies and farmers in Colorado, accused of violating the patent by illegally growing and selling Proctor's yellow 'Enola' bean was settled out of court in 2002 and an equitable sum was paid to POD-NERS, despite the fact that the farmers said they had been growing Mexican beans since before the patent was awarded.
- The Mexican government has vowed that it will challenge the 'Enola' patent.

Sources: RAFI, 'Enola Bean Challenged' 01.05.01; Colorado Bean News, 'Proctor's Gamble', Winter 200; Litigation Services Network, 'Patent Dispute Centres on Growing of the Bean Variety', 11.01.02

Research: people before profit

The commercial incentives encouraged by intellectual property rights means that research is directed, first and foremost, towards 'profitable' diseases.[84] According to the World Health Organisation: "Questions remain as to whether the patent system will ensure investment for medicines needed by the poor. Of the 1,223 new chemical entities developed between 1975 and 1996, only 11 were for the treatment of tropical disease."[85]

Without patent protection, the pharmaceuticals argue, there is no incentive to invest in research for cures for tropical diseases. But patent protection merely drives prices up so that the people who most need the drugs are unable to support them. A good example is the vaccine which has been developed for Japanese encephalitis, a mosquito-born virus which kills 10,000 people a year in the developing world. But it will be marketed to western backpackers planning trips to Africa. *Guardian* journalist Charlotte Denny said: "Gap-year kids are a more lucrative market than locals."

Not only do property rights skew research towards profitable cures and chemicals, but the huge profit associated with the launch of a new drug has also led the leading medical journals to question the integrity of drug trials. Thirteen of the world's leading medical journals have accused powerful drug companies of distorting the results of scientific research and clinical drug trials for the sake of profits. Drug companies are increasingly attempting to influence or suppress the

medical research they fund, by using their cash – or the threat of its removal – to tie researchers to contracts that prohibit them from reporting freely on the results of their trials.

Richard Horton, editor of *The Lancet*, said: “Economic pressures are creating an environment where the pharmaceutical industry exerts control of trial design, access to raw data, and the interpretation of study findings.” Scientists may be prevented from having access to the raw data gathered in the trial and may be given no say in the way the trial is designed. Results may also be buried if they are not favourable to the promotion of new drugs.

Editors of the journals have also criticised the growing use of private, non-academic research groups known as ‘contract research organizations’, which are cheaper and less independent that academic institutions. [86] Academic institutions have long been complaining of the increasing presence of the interests of the private sector in their research.

Part 3
Reinvigorating the commons

Different voices

There are already practical examples of different ways to organise our affairs without using restrictive, illiberal approaches to property and there are strict 'limits to property' as it is understood in the Anglo-Saxon model. Individuals, communities, countries and the world as a whole must be set free to find appropriate property regimes that will solve our many, testing and diverse problems.

The commons in all their forms are gradually being sliced up and privatised, most frequently with the argument that private ownership is the most efficient way of distributing and preserving resources. This argument does not hold in many cases, and there are now a number of organisations, including the Centre for the Public Domain in the USA and the New Economics Foundation in the UK, which are looking for ways to keep the commons alive and free from enclosure.[87]

The New America Foundation (NAF), for example, argues that human co-operation can generate remarkable economic and social wealth, and that the commons often defies the standard economic narrative about self-interested utility maximisation. Examples of how a common asset can be successfully managed in an open, collaborative manner include academic disciplines, internet groups, community organisations, and democratic self-governance. Indeed, according to the Foundation, certain resources – such as national parks, regulatory apparatus, and government R&D – have even greater value when they belong to an entire community and not just a few individuals. NAF suggests that:

- We need to stop giving away taxpayer assets, such as mining, logging and oil drilling rights, at a fraction of their market value and with big subsidies.
- There is an important role for government and citizen networks for creating new voluntary social institutions that can work for the commons, or even serve as a gift economy.
- We need well-designed organisational structures with effective legal and cultural support.

To this end, markets must be structured to allow a commons to emerge and flourish, and create a social and ethical commons for market activity. Regulations could include minimum levels of safety, fair play and information disclosure.

The principles that so often prevail in the commons are ones of openness and feedback, civic commitment, shared decision-making, diversity of perspectives, social equity among members of the commons, environmental sustainability and community vitality. The challenge will be to incorporate these principles within the market system to come up with innovative solutions.

The idea of the commons is also a useful way of reasserting public control over public resources without triggering a tired debate between the idea that the market is always good and government regulation always bad. There are a range of different ways to protect the commons other than regulation alone – stakeholder trusts, participatory ownership, voluntary institutions for sharing and collaboration, new legal principles that allow people to maintain the commons in different policy arenas. The rest of this section suggests some alternatives.

IP-free zones and open source software

The expanding scope of intellectual property is constantly under attack. Much of the debate has arisen as a result of the TRIPs regulations, but there are wider issues. Should there not be some types of knowledge which should simply not be subject to private ownership?

Seth Shulman believes that we should treat such types of knowledge as a shared infrastructure, or 'infostructure', that belongs to us all.[88] He points to the mechanisms of national, state and municipal park systems as an example. These retain some special land for shared use, preserving it as a shared asset, and this could work as a metaphor for the idea of an IP commons, or IP-free zone.

According to Shulman, the escalating privatisation of knowledge assets will choke productivity, magnify inequalities, and erode our democratic institutions. The task, then, is to identify and define where shared interests should over-ride private claims on the knowledge frontier. One area, he suggests, could be medical procedures, which would benefit human health if they were freely shared and propagated among practitioners.

Likewise, the raw sequence data of human genome would also be the type of knowledge needing to be placed in an IP-free zone. Shulman believes that this knowledge deserves special protection as a key piece of our human inheritance. Confining it to the IP-free realm would set a vital precedent and show the world that some kinds of precious information resources must be off limits for private ownership.

Professor Larry Lessig of Stanford Law School also calls for certain knowledge to remain in the public domain. He proposes the creation of an IP conservancy (or land trust) in which people give their creative works to the conservancy stipulating that it will remain in the public domain.[89]

In the same vein, David Bollier of the New America Foundation, argues that innovations in private law can be used to keep information free. He cites the example of the General Public License (or 'copyleft') that was used to protect Linux software. GPL is a contractual provision, which dictates that any new source code will remain free and available to anyone in perpetuity.[90]

The MST land movement

Over the centuries, exclusive rights to land and excessive accumulation of property has led to inequitable distribution, injustice, poverty, environmental degradation and the loss for many people of their basic right to a livelihood.

The Landless Workers Movement (MST) are attempting to 'redemocratise' the land in Brazil. Its purpose is to reveal the unjust land distribution patterns dominant in the country. It is now the largest social movement in Latin America.

Meanwhile, the previous government under President Fernando Henrique Cardoso signed up to the World Bank programme of market-led land reform[91] and IMF-style structural adjustment of agricultural production. Its policies include: stimulating the establishment of large landed estates that produce grain for export, stimulating the oligopolisation of control over the internal agricultural market by large corporations (the majority of which are multinationals), decreasing subsistence agriculture, dismantling the so-called agrarian public sector, transferring control of biotechnology in favour of the large multinational groups, and reducing employment in agriculture by approximately five per cent per year.[92]

The consequences of this economic model is "the increased concentration of

Treaty Initiative to Share the Genetic Commons

- The Treaty Initiative to Share the Genetic Commons was initially drafted by RAFI, 11 other NGOs and indigenous peoples organisations.
- The treaty was formally launched in February 2002 at the World Social Forum in Porto Alegre, Brazil, and at the PrepCom for the Rio+100 Conference at the United Nations in New York City.
- The purpose of the treaty is to establish the Earth's gene pool – in all its biological forms and manifestations – as a global commons to be jointly shared by all peoples. They want to establish collective responsibility for stewarding the earth's gene pool.
- They argue that the USA has misinterpreted the global commons and seen it as a way of making unlimited claims to the world's genetic diversity for the purpose of converting it into intellectual property.
- The treaty prohibits all patents on plant, animal, and human life including genes in all their forms. Countries therefore have sovereign rights to oversee the resources, but as a global commons the gene pool cannot be sold as genetic information.

land, even greater concentration of income in the countryside, greater dependency on imported provisions for the cities, greater dependency on the agro-industries controlled by multinationals, and, as a result, an augmented impoverishment of the rural population".[93]

Joao Paulo Rodrigues, MST co-ordinator in Brasilia, said: "IBGE (Brazilian Institute of Geography and Statistics) figures show that land concentration in this country has risen from 18-21 per cent since the start of the current administration."[94] In real terms, less than three per cent of the population owns two-thirds of Brazil's arable land, and one per cent of large landholders control 46 percent of agricultural land.[95] In comparison, 4.8m families have no land, employment in agriculture has declined by 5.5m and 2m rural wageworkers have lost their jobs between 1985 and 1996. This means that, while Brazil has 400m hectares of arable land, only 60m of them are used for planting crops, and while this vast proportion of farmland lays idol, 35m Brazilians live in poverty.[96]

The response to these moves by the government has been simple. People have taken back the land. In 1985, with the support of the Catholic Church, hundreds of landless rural Brazilians took over an unused plantation in the south and successfully established a co-operative. They gained title to the land in 1987.[97] MST has continued to redistribute land, using the Brazilian constitutional law, which decrees that land must fulfil a 'social function'. As a result more than 300,000 families have won land titles to over 20 million acres through MST land takeovers. In 1999 alone, 25,099 families moved on to unproductive land. There are currently almost 100,000 families in encampments throughout Brazil awaiting settlements and government recognition.[98]

MST has also created 60 food co-operatives, as well as small agricultural industries. Their literacy programme for adults and adolescents involves 600 educators and it monitors 1,000 primary schools in their settlements, in which 2,000 teachers work with about 50,000 children.[99] These projects put into practice just a few aspects of MST's alternative socio-economic development model that advocates, among other things, the appropriation of all unproductive estates, their redistribution to Brazil's five million landless people, the promotion of agro-industrial co-operatives, the reinvigoration of the agricultural public sector and the improvement of human and employment rights.

The current administration under the Worker's Party's Luis Inacio 'Lula' da Silva, which took office in January 2003, has always been a strong supporter of the MST's demands and announced early on that it would expropriate 200,000 hectares of unproductive land for redistribution. But the MST has declared that this only represents a tiny amount of the reform needed and ended its truce with the government after two months to continue taking over farms, in order to speed up reforms. It is therefore yet too early to say what impact 'Lula' will have over the land distribution issues in Brazil.[100]

Most recently, Lula has been lobbied by governors from Brazil's north-east region speaking on behalf of the big landowners. They are demanding that he intervene to halt a wave of land seizures. MST leader Jaoa Pedro Stedile refuses to back down. "The peasant struggle includes 23 million people. On the other side are 27,000 ranchers," he said. "This is the dispute."[101]

Housing co-ownership

The Joseph Rowntree Foundation produced its Land Inquiry report in 2002, which recommended three main measures to tackle the affordable housing problem:

- The urgent need to increase housing production which had slumped in 2001 to the lowest level of construction since 1927 (apart from the war years).
- The planning system should become more regionally oriented like elsewhere in western Europe and streamlined for greater speed and efficiency.
- The use of North American style community land trusts (see below) to reduce housing costs by taking land out of the market so that houses could be rented

- More than 325 NGOs from over 50 countries have joined in this unprecedented effort to prevent companies from patenting the genes that make up millions of years of evolution.

Sources: South Centre (2001), 'Treaty to Share the Genetic Commons', South Letter, vols 1&2, no 37; Rifkin, J (2002), 'Who Owns Nature

or purchased on a leasehold basis from the trust and the land thus does not form a cost factor in the transaction.

In its latest Sustainable Communities Plan which sets out its housing and regeneration framework for the next twenty years, the government has endorsed the first two recommendations of the Rowntree report but has not commented on the third. Policy work by the Greater London Authority has described the key worker housing crisis as one of double market failure as new workers in vital public services face a double jeopardy of both the failure of the homeownership market and the failure of the rental market to meet their needs.

The GLA has called for a mid-market solution to meet the affordable housing needs of key workers earning between £12,000 to £24,000 or somewhat more, depending on the job. The GLA has recognised that mutual housing, as in other European countries like Scandinavia, may provide collective economies absent from existing shared ownership type approaches.

It has been forgotten that current approaches to affordable homeownership, such as shared ownership and Homebuy, stem originally in concept and also in practice as well from limited equity co-operative housing models. In 1901, Ealing Tenants was founded in West London as the first housing co-op in the UK. The model was known as Tenant Co-partnership and was a partnership of tenant purchasers of equity and ethical investors, such as the local co-operative society.

Typical building costs at that time were £125 and the tenant purchase share over the life time of the scheme was designed to contribute a minimum of £50 of this. Between 1901 and 1912, 14 Tenant Co-partnerships were established in many areas of England and almost 35,000 people were housed. After the First World War the system was supplanted by the development of council housing and over time the mutual housing stock constructed was steadily privatised.

From 1961, a similar approach was developed which achieved Housing Corporation support under Harold Wilson in 1966. This Co-ownership society housing was based broadly on the Tenant Ownership Co-operatives which developed in Sweden and elsewhere in Scandinavia from the 1920s. In Scandinavia today, this mutual housing accounts for over 20 per cent of housing and similar low equity co-op housing has developed in the USA – especially in high cost urban areas like New York, Chicago, and Los Angeles.

Between 1961 and 1977, 1,222 Co-ownership societies were established and over 40,000 dwellings constructed. Support in terms of low cost finance for development was provided through long term government backed mortgages of 40 years, plus building society mortgages. Option mortgage tax relief was granted by government in 1967 as an strong incentive to develop national take up and to assist additionally in reducing the costs to low and moderate income working households.

Community land trusts

Another model aimed at redressing imbalances in the ownership of land is the community land trust (CLT). This has been developing in the USA and Canada over the last 30 years, and is now being applied in several projects in the UK.[102]

The community land trust provides mutual ownership of land for the benefit of the community. It allows solutions to be developed locally for different uses of land, including housing, business, agriculture, recreation, environmental conservation and habitat protection. In spite of the promotion of freehold domestic property in the UK since 1967, CLTs try to develop a middle path between private freehold and feudal leasehold by creating a modern-day 'commons'. They offer a practical way to take land off the market and place it into a system of trusteeship, maintaining the affordability of land because there is no capacity for speculation or profiteering.[103]

The concept of CLTs invokes an earlier rural legal framework: "Up to the 14th century, land was not purchased or even bequeathed by legacy, but was bestowed in trust and in return for certain services. It was not even held by law,

much less by a money transaction, but by custom alone and so upon a traditional basis."[104]

CLTs are often characterised by dual ownership, in which the CLT itself keeps ownership of the land in perpetuity while the users of the land - tenants, homeowners, businesses, farmers, non-profit bodies etc – own or rent the buildings on the land on a long leasehold basis, which is paid through modest ground rent levels.[105]

CLTs are similar in kind to other co-operative land reform movements around the world, such as the Bhoodan and Gramdan movements in India and the Ejidos movement in Latin America, although co-operative land reform ideas are British in origin and can be traced back Chartist Robert Owen's proposals in 1817 for 'Villages of Unity and Co-operation'.

Before this, an early CLT – the Colton Parish Lands Trust – was set up by Act of Parliament in 1792. It still exists and manages 60 acres of buildings, amenity space and farmland for the benefit of three villages in Staffordshire. Other historic examples include Letchworth Garden City, the Bournville Village Trust in Birmingham, set up in 1900 to manage land gifted by the Cadbury family, and the St George's Fund of 1871 established by John Ruskin to prevent village artisan skills from disappearing, conserve historic buildings, finance affordable housing in London and to protect areas of natural beauty. This fund later became the Guild of St George and was associated with the Commons Defence Association, which later became the National Trust.

In the USA and Canada, CLTs have been used to provide affordable housing in rural towns and inner cities. In the UK, they could be used to meet rapidly increasing housing targets. It is predicted that 32,000 units of low-cost housing will be needed each year for the next 10 years in London alone.

In Birmingham, the community loan fund Aston Reinvestment Trust, is working with home improvement agencies to develop CLTs to secure equity release finance for poor homeowners who need to carry out major property repairs. In the Scottish Highlands, CLTs are being encouraged by the Scottish Parliament to play a part in land reform by enabling communities of crofters to purchase land. The Dorset Food and Land Trust is working to develop a CLT for community ownership of organic farmland.

Diverse as they may be, all CLTs are based on the belief that land and its natural resources are a 'timeless trust', which must be shared equitably and preserved for the benefit of future generations.[106] As mutuals, CLTs are democratic organisations governed on a one member-one vote basis. They may be registered either as companies by guarantee as in Scotland or as a 'society for community benefit' under the Industrial and Provident Society Law. In Britain, they may have both individual and corporate members on a one member-one vote basis.

The concept of CLTs as a participative mechanism for stewarding the commons is an exciting one. CLTs can engage local participation in tackling the neglect, abandonment or degeneration of local economies. As such, it is not merely a method of holding land in common but also a way for a community to hold land for the common good. While there is no broad movement to decommoditise land as yet, "a local CLT is, by its very existence, a means for educating the public on issues of land tenure; it can 'catch' and hold land as it is freed for the community. With the forming of CLTs around the country, a movement is growing that can lead us to a new cultural relationship with the land."[107]

Common heritage dividend

A more radical reform of land ownership is proposed by the likes of Gilman.[108] He argues that the distribution of the unearned benefits of land rights should be rethought and proposes establishing a Common Heritage Dividend to do this. This would go a long way to alleviating the two main drawbacks of market economies: their systematic bias towards those with more wealth, and the problems they have in directly supporting socially valuable activities.

As we saw, land speculation has led to the extreme concentration of land in the hands of the few. Our current system of property taxation falls principally on the buildings and infrastructure, while only a small proportion falls on the land values themselves. Because they are under-taxed, urban site rental incomes accumulate with the few who already own valuable sites without any labour on their part.

He proposes that we make all citizens, collectively, landlord of all land – as on a small scale, a community land trust is – and make every user a renter or leaseholder. Use of land can be as unevenly distributed as we like – as it is in the marketplace – but users will pay their full share of the unearned benefits that the land gives them, and the economic value of this benefit can then be shared equally by the whole population. According to Hartzok, who proposes a similar system: "Land value taxation policies shift taxes off of labour and productive capital and on to land and resources, thus collecting ground rent for the benefit of all rather than the profit of a few."[109]

In 1879, Henry George suggested that:

- Property tax be changed so that it is based solely on value of the land, and not on value of buildings or improvements.
- Land tax be raised to 100 per cent of the full rent value of the land only.
- The value from these taxes be distributed through government services for the common good.

Gilman combines these ideas with ideas from the land trust movement:

- All ownership rights are split into a stewardship bundle (for immediate users) and a trusteeship bundle (to be held, for example by a community land trust, publicly governed but separate from normal government).
- All land users are charged full rent value for their lease fee.
- Some percentage of this income is set aside for the support of wilderness areas, soil conservation, and other activities supportive of all life.
- The rest of income is split directly to people as a *common heritage dividend* (CHD).

The idea has found support in the UN Habitat II Action Agenda 1996, endorsed by 165 states: "Governments at the appropriate levels…should nevertheless strive to remove all possible obstacles that may hamper equitable access to land and ensure that equal rights of women and men related to land and property are protected under the law." The recommended approaches include land value assessments, land based forms of taxation, land value recapture, and technology and education programmes to support land administration systems.[110]

The revenue generated could be huge. Several tax shift models indicate that some nations could fully substitute income taxes with resource rents. A NEF study estimates that half the tax revenue in UK could be raised through a land value tax set at 75 per cent of annual rental value.

If it were no longer possible to purchase land, there would be an end to land speculation. It would also make land more accessible to potential users with personal energy but little capital and would reconnect the market economy with the non-market (household, volunteer, natural, etc) economies. Gilman believes that the ultimate benefit would come from eliminating the unearned economic advantages that now come with ownership, and thus eliminating one of the root causes of social conflict. He argues boldly that "were such a system established on global scale it would eliminate much of the economic cause of oppression, revolution and war".

The idea is similar to the 'green tax' suggested by Hartzok, who argues that

activities which damage common heritage resources of air, fresh water, land and sea should be penalised. Green tax shifting is based upon the principle of equity of access to resources for all nations and peoples. "Viewed from the ethic of equal rights to the creation, the under-taxation of land and natural resources is a form of theft from the common heritage," he wrote. "Governments charge much less than they could and should for the extraction and use of resources."[111]

Taxes or fees would be increased or new taxes levied on carbon, air pollutants, gasoline, virgin materials, public resources, water pollutants, electricity, natural gas, coal for industrial combustion and residential fuel oil.

More than 2,500 economists, including eight Nobel laureates, have signed a statement on climate change endorsing such a tax.

The Sky Trust, proposed by Barnes, has many of the same solutions. This system treats the sky as the ultimate commons, since we all 'own' it.[112] Barnes suggests that we should regard it as a valuable shared inheritance and that a financial institution similar to a mutual fund should be set up to own and manage the sky on behalf of its millions of owners.

Both Hartzok and Barnes cite the example of the Alaska Permanent Fund as a resource trust that could form the basis for the collection of payments for natural resource use and the distribution of dividends to citizens. Alaskans set up the fund to collect and hold the billions of dollars of state oil revenues. Citizens chose three uses for the money:

- Let state government use part of it for schools, highways, and other infrastructure.
- Return a large portion to citizens directly through annual cash dividends.
- Invest the remainder in a portfolio of stocks and bonds, so that dividends would continue after the oil runs out.

Such a system would bring an end to the long-established privilege of owners who are allowed to retain all the unearned benefits from their land. Of course, these models would threaten the most powerful vested interests in the world, as well as challenge deeply-held cultural beliefs and values. Gilman acknowledges that we may not be ready for such a change just yet.

Ownership transfer and time limited corporations

The abolition of rights to perpetual ownership is another solution to inequities generated by land distribution. Economist Shann Turnbull believes that perpetual rights, which evolved from hereditary rulers seeking to maintain political power and wealth in perpetuity, are no longer relevant and are not consistent with economic justice, efficiency and sustainability.

Unlimited life property rights can result in investors getting more benefits than they require as an incentive to bring forth their investment. This Turnbull calls 'surplus profit', a term also used by other economists like Robert Heilbroner but considered inadmissible by orthodox economists. He believes it helps to explain why the ownership of productive assets is more concentrated than the distribution of income in private property market economies.

Greater equity and efficiency can be introduced into market economies through replacing perpetual, static, monopoly property rights with time-limited, dynamic, co-ownership rights referred to as 'stakeholder tenure':[113]

"With stakeholder tenure, the long term ownership of firms and realty would gradually accrue to those individuals who added value through some physical operational relationship. With realty, if you do not work it, or use it, you lose it. In this way, property owners, as well as users or other operational stakeholders would obtain an incentive to add value to society. All individuals would gain connections to property in their physical proximity to reduce alienation, exploitation and obtain the power to look after their environment."

This is little more than Locke's idea that land belongs to those who labour on it. Turnbull proposes that company property rights should gradually be transferred to those individuals the organisation needs in order to exist. He calls them strategic stakeholders. They would include employees, customers, suppliers and members of the host community who provide infrastructure services. Ownership by strategic stakeholder would introduce elements of local ownership and control and encourage firms to become socially and environmentally accountable to their host community. The distribution of property rights to stakeholders would also disperse property income.

While the concept might seem rather radical, Turnbull points out that there are a number of similar precedents. We already have Time Determined Investment Contracts (TDICs) – patents in effect – as well as many limited liability partnerships, and shares in common law corporations. It is a concept that has been used by governments to finance infrastructure projects, such as power stations and motorways. We can also see a form of non-exclusive, dynamic, co-ownership rights in the vesting provision of superannuation and pension funds. We also have Employee Share Ownership Plans (ESOPs), which increase equity entitlements according to the length and value of an employee's service.

In practice, according to Turnbull, transfer of ownership is easily done. A company would need to create one type of shares for investors and a second type for stakeholders. The investors could enjoy a monopoly of exclusive, economic rights for 10 years, with all rights then transferring to stakeholders over the following 10 years. "In this way, dynamic, non-exclusive, co-ownership rights are created between investors and stakeholder to explicitly recognise their respective contributions and strategic interdependence," he writes. A tax incentive could be used to encourage existing corporations to convert to OTCs.

"Stakeholder tenure provides investors with a 'just profit', as proposed by Gandhi, with excess profits being shared by the community," he writes. Gandhi's proposal, claims Turnbull, offers a technique for "capitalising socialism" and an opportunity to improve economic equity and efficiency: "In this way the wealth of nations could be both democratised and localised to build a more sustainable and just society."

The Capital Ownership Group backs Shulman's criticism of perpetual property rights:

"Perpetual property rights allow unlimited returns to accrue to investors. This is inconsistent with the rationale for a market economy which assumes that competition will limit profits. The payment of unlimited profits over time makes private property market economies less efficient and equitable."

They argue that a stakeholder tenure system would minimise social and economic alienation by increasing local ownership and participation. Local ownership would also allow communities to use surplus profits generated in their region for the common good.

Community grain fund

The future of crop varieties, seeds, agricultural diversity and food security are under attack from privatisation and private monopolies' control over genetic resources. Intellectual property rights on seeds, in particular, are making unlawful the longstanding culture of seed saving, seed exchange and seed renewal as practised in developing countries for thousands of years.

The continuation of these practices is seen by the multinationals as a major block to their potential profit. What used to be "an exhaustless source of renewal and nourishment" is being transformed into "a costly, non renewable commodity, to be purchased every year".[114]

At policy level, developing countries and civil society groups have been fighting to change international patent rules, eliminate patents on life forms and to ensure the compatibility of TRIPs with the Convention on Biological Diversity. Peasant farmers have been taking practical steps to overcome these threats and hence to

take control of their seeds, their crop yields and their future security.

The Deccan Development Society, a grassroots NGO working with peasant farmers in Andhra Pradesh in India, has been working to help villagers build capacity to organise themselves and has set up what they say could be the first ever decentralised public distribution service in India, which does not need constant subsidy year after year.[115] They say the present government public distribution service is failing for several reasons: the food supplied is nutritionally insufficient, the subsidies are increasing even though many of the poorest people cannot afford the food, it is causing environmental damage and desertification.

The 'Alternative Public Distribution Service through Community Grain Fund' attempts to overcome these issues, as well as returning control and participation to the local level. The schemes are set up as entirely community-managed systems, based on coarse grains (the local staples), locally produced, locally stored and locally distributed. In the process, the poorest of the poor Dalit women have been empowered through initiating and taking control of their public distribution system. They have re-established their control over the most critical link in the food chain: the seeds.

The project has covered about 2,650 acres of poor farm households belonging to Dalit and minority communities located in 32 villages. In each village, 80 to 100 landholders were financially supported to bring 1.5 acres of fallow land per member under cultivation. The grains collected become the Community Grain Fund from which distribution to members is made.

The other crucial aspect of the project has been its focus on democratic decision-making and control of by the community – and particularly by women – in primary decision-making. It is, for example, through structured collective processes that the women have decided who should benefit from the foodgrains they have produced. "They have employed transparent equity criteria for entitlement through direct democracy, solidarity and consensus…poor women from lower social ranks have found a new decisive voice and control over their food security." Theoretically at least, this control should make sure the project stays successful – and because it belongs to them and is directed by them, it will not be taken away from them easily.

Successes of the Alternative Public Distribution Service

- Over 1,000 hectares of fallows have been brought under the plough.
- An extra 800,000 kilos of sorghum were produced in the first year.
- This amounts to nearly three million extra meals in 30 villages (or 1,000 extra meals per family).
- The fodder provided from the new production sustained over 6000 heads of cattle.
- The programme generated 2.39 lakh person days of employment in the first year and 2.44 in the second. In each village, about 7,967 person days of employment have been generated per annum. And total wages earned easily exceeded the initial project investment.

Contraction and convergence: the global commons of the atmosphere

The best-known global commons issue is currently the human impact on the atmosphere manifest in the threat of climate change. The politics and vested interests that took over negotiations to the Kyoto Protocol have, however, made its success seem unlikely. Despite a joint statement in May 2001 by 17 national science academies which said that human-driven global warming was "evident" and would increase "intense" weather events and drought, and damage "agriculture, health and water resources", we still have no global plan of action.

According to Sir John Houghton, former chair of one of the key working groups of the Intergovernmental Panel on Climate Change, emissions need to be reduced by at least 60 per cent in less than 100 years. Why are we not doing it? How can we do it?

There is growing acceptance for the idea that the absorptive capacity of the atmosphere is one of the public goods provided by the global commons. This has highlighted, particularly in the developing world, an important contradiction, namely that – despite everyone having an equal claim to this global good – it is currently being used very unequally.

We need then to challenge the continuing status quo of unequal global wealth distribution, powered by the unequal use of our fossil fuel inheritance. If a global commons such as the atmosphere, to which we all have an equal claim, is over-used and degraded by one group of people, these people build up an ecological debt to the wider community which depends on the commons. It follows that rich countries' unequal use of the global commons of the atmosphere is running up a

gigantic ecological debt. That debt, and climate change itself, creates an entirely new context for all dialogue between nations.

On this basis, a plan to tackle global warming cannot succeed unless it concedes each individual's logical claim to the atmosphere – in other words, unless it sets up a system of property rights or 'entitlements'. If this were accepted, we would have to see a fundamental realignment of who owes whom in the international economy. Over time, the equal distribution of property rights in the air above our heads could mean the biggest economic and geo-political realignment of recent history.

A practical implementation of these ideas has been pioneered by the London-based Global Commons Institute in their contraction and convergence model. If governments agree to be bound by the target of reducing greenhouse gases by at least 60 per cent in less than 100 years, then it is possible to calculate for each year over the next century the diminishing amount of greenhouse gases the world can release to meet it.

This is the contraction part of the equation. Convergence describes how each year's tranche of the global emissions budget is shared out among the nations of the world. The process is managed so that every country converges on the same *per capita* allocation of carbon dioxide – the same personal emissions 'allowance'" – on the same date.

The date is negotiable – Houghton suggested 2030. Countries unable to manage within their allocations would, subject to agreed limits, be able to buy the unused parts of the allocations of other, more frugal countries. Sales of unused allocations would give the countries of the South the income to purchase or develop zero-emission ways of meeting their needs.

Contraction and convergence provides an effective, equitable and efficient framework within which governments can work to avert climate change. Its potential as an antidote to global warming has been widely endorsed, not least by the insurance industry, which is in the front line of the impact of climate change.

By agreeing what each person's carbon dioxide allowance should be, and then working out a plan to equalise them, the returns to all of us who are shareholders in the global environment are maximised, rather than just the few who are shareholders in multinational corporations. It is the only way to introduce coherence on curbing climate change to all major international economic negotiations. Failure to act will lead to worldwide environmental bankruptcy.

The mutual state

The co-op movement grew in strength until the 1950s. Between the wars there were 1,400 societies and the Co-op, with a 25 per cent share of the market, dominated retail shares. But since then, the consumer co-operative movement has been in steady decline. Despite being the world's largest co-operative, and reporting a year-on-year increase in total sales in the first half of 2001 of 10.8 per cent to £2,524 million, it only held four per cent of the UK's retail market in the same year.[116]

Carpetbagging in the life insurance and mortgage industries during the 1990s has accelerated the same trend in the UK's mutual institutions. Mutuality on a large scale failed to engage members, who opted for the benefits of private ownership.[117]

Yet we have begun to see a revival in social and ethical businesses that give employees a stake and which respond to people's desire for a more wholesome consumerism.

One success story is the Fairtrade Foundation (FF), which exists to give a better deal for marginalised and disadvantaged third world producers. Fair trade coffee now has more than 14 per cent of the UK ground coffee market and the value of fair trade products at the check-out has grown from £2.75 million in 1994 to £63 million in 2002. In the past two years, the annual retail sales growth has been 91 per cent.[118]

Greenwich Leisure

Greenwich Leisure Ltd is an employee co-operative established in 1993 for the benefit of the community. It was converted from a local authority department into a social enterprise in order to escape the financial constraints imposed on local authorities.

Staff at the company - now over 2,000 in number - have a say in the management through a co-operative structure, which has given them a direct stake in its success. In this sense, it is also a stakeholder-run organisation, with a board consisting of elected staff, council members, a trade union representative and customers.

The result has been a highly successful enterprise. The turnover in the Greenwich centres has increased from £2.5 million in 1993 to over £8 million in 2002. The number of public leisure centres it manages are now up to over 30. Alongside this it has more than halved the cost to the local authority for providing the service.

Sources: Mayo, E. & Moore, H. (2001) 'The Mutual State: How local communites can run public services', New Economics Foundation, Greenwich Leisure Ltd, 'About Us', May 2003

More than 500,000 farmers and workers in Latin America, the Caribbean, Asia and Africa benefit from UK sales and the better deal that the fair trademark guarantees. Half a million coffee growers are represented by the more than 300 co-ops on the International Fairtrade Coffee Register.[119] As well as guaranteed fair prices, the growers are paid a 'social premium' to be used for the benefit of the whole community.

Modern social enterprises range from charities to cooperatives, from informal voluntary groups to industrial and provident societies. But an emerging shared focus has been to benefit the community and the genuine participation of local people.

Research by the New Economic Foundation suggests that the number of social enterprises has grown overall by nine per cent in 2001 alone, but the potential exists for more. Ed Mayo and Henrietta Moore of the New Economics Foundation believe that the entrepreneurship, innovation and results demonstrated and achieved by this sector could be taken a step further and applied to the running of public services. Their new vision, which they call the Mutual State, would see government co-operating with, rather than serving, citizens to better-run public services.[120]

They say this would recreate a new form of mutuality focused on participation and social entrepreneurship rather than conventional ownership, based on the belief that local community involvement can improve the design, delivery and experience of public services: "Involving people in their delivery would thus offer a powerful opportunity for a wide-ranging and participatory civic renewal."

The decentralisation of services could lead to a new professionalism for public services, as envisaged by advocates of privatisation, but based instead on empowerment and inclusion within the context of social ownership. The mutualisation of public services means that ownership and accountability passes from central government to the direct stakeholders of public services – typically users, staff and, in some way, the broader stakeholders of the local community.

One way to achieve this is the issue of local bonds, so that citizens can become social investors with a stake in the improvement of local services beyond that of passive taxpayer.

There are a range of successful examples: music teaching services, care and worker co-operatives and tenant-owned housing organisations, and others. With public service reform at the top of the political agenda, the reinvention of mutual service delivery could just possibly save public ownership by restoring a sense of what it really means.

United Front

One example of people reclaiming ownership from corporate control is the Lincoln City Supporters Trust, a fans' co-operative, which has created a community-owned football club.[1] The idea to take back control of their club was fuelled by stories of business malpractice and the alienation of the fan base due to growing commercialisation.

The scheme that helped them to do this was Supporters Direct, a government initiative hoping to give supporters a greater stake in the running of their clubs. To set up a group such as the Lincoln City Supporters Trust, fans need to set up a co-operative that has a constitutional model based on democratic, mutual and not-for-profit principles.

Peter Hunt, general secretary of the Co-operative Party, said: "Supporters Direct is the first clear government initiative for 20 years to promote mutual ownership." He hopes the idea will be applied elsewhere.

Source: Palmer, H, 'United Front', The Guardian, 08.08.01

Summary

The man who claimed the solar system as his own to sell is just the logical result of an approach to property gone haywire. There are a range of different ways in which ownership has been regulated and managed throughout human history. But today that great diversity is being pushed-out by a restrictive approach that over-values private or commercial ownership. Both agriculture and scientific endeavour has been well-served in some circumstances by traditional common ownership.

There are limits to the utility of the Anglo-Saxon model, which – in the form of privatisation, patents, copyright and intellectual property – is being pushed to ever further extremes, often in places where they are inappropriate and counter-productive. In their early stages of development, today's economic giants like the US and Britain, infringed the intellectual property of others with impunity. Yet, today, through the agreements of the World Trade Organisation, they would prevent other countries who are trying to climb the development ladder from doing the same.

There are already practical examples of different ways to organise our affairs without using restrictive, illiberal approaches to property – ranging from community land trusts to 'copyleft', open source software and stakeholder ownership. Some specific examples mentioned in the introduction include:

- Equal shares in the global commons – as we try to control the pollution of the global commons of the atmosphere, worldwide equal per capita entitlements to its services.
- Free knowledge in health and drugs designed for major public health crises such as AIDS/HIV.
- Community land management through mechanisms like community land trusts.
- Community seed banks and no patents on essential food stuffs.
- Time limited companies and ownership transfer corporations.
- Mutual ‘ownership’ of public services.
- Greater application of ‘user rights’ to deal with the problem of absentee land and property owners withholding useful and productive assets from communities in need.

The problems facing the world require a wide range of ownership models if we are going to spread resources – intellectual and actual – successfully around the planet and to reach the breakthroughs in knowledge that humanity requires.

In examples such as the management of the global commons of the atmosphere, it is the absence of property rights that is the problem. Global warming, left unmanaged, could be the ultimate tragedy of the commons. The lesson is that each situation facing us will probably require a different, tailored solution.

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