

Futurewatch

Jennifer Coote
New Zealand Futures Trust
New Zealand

An information service on current, international perspectives on our futures, prepared by futures scanner, **Jennifer Coote**. Annual dates in last two digits.

SOCIAL

New Demography

P. Longman, *The Empty Cradle; How Falling Birth-rates Threaten World Prosperity and What to Do About It*, Basic Books 04, is apprehensive of a world where falling birth-rates lead to economic crisis and religious fanaticism. The demographic case has three parts. In the less developed countries (LDCs) fertility rates are falling dramatically from 6.0 children per woman, 1965-1970, to 2.9, 2000-2005, and falling. China, Iran and Mexico are among 20 countries who are below replacement level. Though state policies are one factor, the chief reason is spontaneous change in human behaviour. Since many of the LDCs are poor countries, their people could well become old rather than rich; 4-2-1 societies where one child must support two parents and four grandparents.

The developed nations, especially Europe and Japan are rich, their birth-rates have fallen further than the LDCs, 20% of European women, on reaching menopause, have had no children. This behaviour made sense for individuals and couples but has serious socio – economic consequences. America is the major exception to this trend, thanks to its large influx of immigrants and the high fertility levels of some groups. Overspending on health care may eventually erode its demographic benefit. The strongly religious character of America supports the values of procreation and care for the elderly, but if social fertility levels generally fall it could lead to a nation dominated by zealots, with families where father knows best.

Policy suggestions include tax relief for parents of children under age eighteen, measures to delay retirement and promote health in the elderly, home-based employment and family enterprises. More research is needed on the cultural issues underlying the change in human behaviour. See also *Public Interest*, Spring, 05; *Foreign Policy*, March/April 06.

N. Eberstadt, *Hoover Policy Review*, April/May, 06, considers that the developed nations still have scope to meet the demographic challenges ahead. However a number of the major emerging economies in Asia, E. Europe and Latin America face grimmer and more restrictive futures in which, because of their current poverty levels, they may grow old before they become rich. Three case studies illustrate the diversity within this overall prospect.

China, by 2025, can expect to double its cohorts of the over-65s to some 200 million people.

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Many of these have lower levels of education and live in the poorer regions. They must rely on family support, and the "son" deficit means they may be competing with in-laws for support. Proportionately many are in much poorer health or disabled. Those who can must work, in agriculture, where labour saving machinery is limited.

Russia's aging pattern is similar to much of Europe, but the quality of the supporting workforce is alarming. Negative momentum arising from deficiencies in health maintenance mean that each new cohort in the workforce is more fragile than the previous one. Mortality rates are rising steeply. Male life expectancy is anticipated to lag behind South Asia through 2025. Socio-economic impacts will drag down national development.

India, though aging over the next twenty years, can maintain a more youthful profile. Two demographic Indias are emerging as regions differ markedly. North India is expected to sustain high fertility levels but the resulting workforce has limited educational and training prospects, in a largely agricultural society. The southern states, the economic power houses now, will be aging by 2025, but their per capita output levels are still very low, though the workforce is well educated. Pensions are limited and probably likely to remain so.

Globalisation and Social Exclusion: A Transformationalist Perspective, R. Munck, *Kumarian Press*, 05, from a UK/Irish academic, analyses in depth and breadth the new paradigm of social exclusion, a reframing of poverty and inequality. The negative social effects are creating global counter-movements, some mildly reformist some radical and transformative. The rise of the 'global city' symbolises the dynamism and the inequality in the globalisation process. Race and gender issues are deeply affected.

Urban Development - Innovative, Sustainable

A. Novy, B. Leubolt, *Urban Studies*, Oct 05, examine social innovation in urban development as illustrated by the participatory budgeting experience in Port Alegre, Brazil, which emerged from processes involving state and civil society. Brazilian state power has traditionally been exercised according to personal relationships resulting in 'clientism' where a few access the resources. Consciousness-raising among exploited groups during the later twentieth century was crushed, but revived with increasing demands for adequate urban services, from the poorer classes on the urban margins linked to trade unions and Christian base communities. It was recognised that a societal transformation through an alternative economy to capitalism was necessary if an open civil society and democratic state were to co-exist.

Participatory budgeting is an ongoing development in this transformation, after a new constitution transferred resources and responsibilities to the municipalities. The annual budgeting cycle has gained increasing trust and participation especially from the poor and from women, as representatives from the various districts, democratically elected, suggest, debate and rank project proposals. These are directed to improvements in basic infrastructure specially for poorer areas, and in education, where the number of children in school doubled over a decade. The common learning process of weighing up viewpoints, involves both middle and poorer classes, and has enhanced the public space with networks of organisations and social movements. The intention

to transform society was countered by the parallel introduction of American style large developments in roads and malls, without public participation.

J. Gerometta et al, *Urban Studies*, Oct 05, provide an overview of the role of civil society in new urban governance arrangements intended to overcome social exclusion. Civil society participation in public deliberation and social economy initiatives forms a valuable contribution to greater urban cohesiveness and governance.

W. Solecki, R. M. Leichenko, *Environment*, May 06, outline linkages between the need for 21st century urban sustainability and the impact of globalisation which weaves cities into dense metropolitan entities. Three interrelated transformations are changing the material character of urban spaces over the next decades. Urban spacial expansion is linked to urban decentralisation and a shift to an urban metropolitan world. The combination the global consumer culture, real estate markets and mortgage arrangements is driving relocation to new suburban centres beyond the urban core. Extended metropolitan regions, often responding to external trade, are sites of rapid social change, with mega development projects. Usually urban developments are individualised, socially fragmented, inequitable and segregated. Environmental impacts are externalised to the poorer areas.

By recognising these problems, planners can create opportunities for sustainable transformation, utilising analysis of historic patterns of urban development and paths not taken. New planning opportunities can thus be found. The development narratives of New York and Shanghai are used to illustrate. The connotation between global competitiveness and urban environmental conditions offers a possible avenue to realise sustainable pathways, for better understanding of regional economic and social interdependence, local civic engagement, heightened efficiency and ecological functioning.

A Home in the City, UN Mille-nium Project, *Earthscan*, 05. Nearly 1 in 3 urban dwellers live in a slum but most governments have ignored them. To meet the Millennium Development Goals' target of significant improvements for at least 25% of these people by 2020, the urban context must be addressed and the capacity of the slum dwellers as active agents recognised. Measures recommended would also combat HIV/AIDS, improve environmental sustainability and reduce gender inequity.

For more detailed analysis with specifics on recommendations, **Financing Urban Shelter: Global Report on Human Settlements 2005, UN Human Settlements Program**, *Earthscan*, 05. Low incomes rather than high housing costs deny their own home to many urban dwellers in developed as well as developing countries.

The Urban Imperative: Urban Outreach Strategies for Protected Areas, Ed **T. Trzyna**, ICUN(World Conservation Union) 05, also www.InterEnvironment.org.pa/papers2.htm argues that protecting nature and improving city life are interdependent goals. Making the right connections leads to new alliances and strategies.

Listing

National Identity and Immigr-ation: Contemporary Discourses, **P. Skilling**, *NZ Sociology*, Vol 20/2, 05. Control over immigration policy is a contested issue which hinges on national interests, (security and prosperity) values (openness, tolerance, respect for human rights) and identity. National identity is the fundamental

debate, containing assumptions about the outside world as threatening or as offering opportunities vital to national development. A common concept of the nation as an organic community is historically questionable, and also politically divisive, while other interpretations envision a competitive unit or a global community of talented people.

ECONOMICS/BUSINESS

Perspectives on Globalisation

Global Covenant: The Social Democrat Alternative to the Washington Consensus, D. Held, *Polity Press*, 04. A political scientist examines "deep drivers", data and trends in an examination of changes in the global order and how they are or are not, shaping our lives. Social democrat values are fundamental to a new global order which is rule-based, justice-oriented, democratic and multilateral. The bonds between economics, politics and law are examined in detail, concluding with a proposed Global Covenant. See also **Alternatives to Economic Globalisation: A Better World is Possible**, 2nd Ed, Eds J. Cavanagh, J. Mander, Berrett-Koehler, 04, a highly recommended update from the International Forum on Globalisation, an independent, research and educational institution. It provides a valuable framework for comparison of the differing philosophies, actions and proposals of the interested parties in the globalisation debate, with careful synthesis of paths forward, plus a compendium of organisations involved in the alternatives and a large bibliography.

World Development Report 2006: Equity and Development, *World Bank /OUP*, 05. Equity (equal opportunity) is important for development. Though inequity can conflict with efficiency, in the long-run they are complementary, resulting in sounder economic functioning, reduced conflict, greater trust and better institutions. The current poverty levels in developing countries are not only morally wrong, they are a massive waste of human potential. Likewise poor countries have restricted opportunities and the World Trade Organisation processes are inherently unfair. Notes policies to be avoided and those which are promising.

Economics academic P. Bardhan, *Scientific American*, April, 06, has researched the linkages between globalisation (of foreign trade and investment) and poverty, which has benefited the poor in some countries but not others. Overall, the crude measure of extreme poverty shows a decline, especially in E, S, and S. E. Asia., partly because of pre-1980 domestic policies. Greater openness to market-based competition causes deep social pain but the rewards, even for "exploited" workers are usually worth it.

Local political and economic institutions and policies can support the transition phases and speed the development process with policies such as:- land reform, expansion of credit and services for small producers; retraining and income support for displaced workers; public works programmes for the unemployed; provision of basic health care and education and attention to a more accountable, efficient political and administrative framework. Environmental degradation is largely the result of lax domestic policies or institutional failure, especially when vested interests pressure governments to keep resource prices low.

Additional measures under discussion are:-capital controls on short-term investments where domestic financial systems are weak; reduction of developed countries' protectionism; trust busting to break the power of large companies in commodities markets which restrict access or returns for small producers; redistributive domestic programmes; immigration reform in rich countries, and research into crops and medicines for poor countries.

A major global annual survey of CEOs shows strong support from companies in emerging markets for globalisation, seen as offering new opportunities to attract new customers and service existing ones, rather than to cut costs. Of special interest are the BRIC economies:-Brazil, Russia, India and China, which are regarded as the most promising emerging economies. They are estimated, if all goes well, to become within forty years larger than the G6. Even by 2025 they could reach 50% of the size of the G6. By 2050 only Japan and US are likely to be among the six largest economies. Mexico and Turkey may also rival the BRICs. The main challenges seen to globalisation are:- over-regulation; trade barriers/protectionism; political instability; and social issues. *Management, (NZ)*, June 06, pp. 44-46.

IBM CEO **S. J. Palmisano**, *Foreign Affairs*, May/June 06, describes the globally integrated enterprise which is replacing the multinational corporation. This has implications for wider thinking and policy making. about how enterprises, communities and societies participate in and benefit. Access is open to developing nations and to small and medium-sized businesses resulting in enlarging trade, opportunities and wealth.

The globally integrated enterprise fashions its strategy and operations in pursuit of an integration of production and value delivery worldwide, beyond any borders. Two distinct forms have emerged:- one features changes in where companies produce things; the second, changes in how they produce them. Closeness to markets is no longer an issue. Companies are embracing shared standards and technologies that enable transfer of more in-house work to outside and overseas specialists. The corporation is emerging as a combination of various functions and skills, loosely or tightly linked, which it integrates to produce goods and services for its customers. The component parts can be combined or recombined according to strategic judgements.

Challenges will be:- to secure a supply of high-value skills; the sensible regulation, globally, of intellectual property; how to maintain trust in increasingly distributed business models; new standards for managements and changes in organisational culture and forms of partnership. "Commercial ecosystems" of intergovernmental regulatory and legislative networks are significant steps towards necessary global security and order.

State Investment

D. Perkins et al, researchers with the Brotherhood of St Laurence, Melbourne, *Just Policy*, Dec 05, examined the recent concept surrounding social policy in EU and especially UK, focusing on the "Social Investment State". This opens new ways of thinking about the ends and means of welfare beyond the deadlocks of the 90's, which can improve economic competitiveness and enhance social well-being. Investment in human capital enhances personal participation in the labour market, with very young children as the priority focus since they are the ones who can yield the best long term

returns.

R. Howell, (NZ) Council for Socially Responsible Investment, www.csri.org.nz, *Public Sector*, Vol 28/4, 05 reports on research into the companies in which the Crown Financial Institutions invest. All invest in tobacco companies and others with unacceptable or questionable human rights. The main non-financial criterion for their investment is the "international reputation clause" - "to avoid prejudice to New Zealand's reputation as a responsible member of the world community." Further and wider investigation reveals that the phrase is so vague as to be meaningless in practice. Replacement with more specific and clearer direction is needed. Government consistency across its policies is also needed.

J. F. Timmons, *World Politics*, July 05, examined government taxation and redistribution policies in ninety countries 1975-1999. After controlling for a variety of factors it was found that:- the more money raised from regressive taxes (on the poor) as a percentage of GDP, the longer the life expectancy, the lower infant mortality, the more is spent on health and (in OECD), on social spending. Progressive taxation as a percentage of GDP correlates with better protection of property rights.

Listing

Chasing the Rainbow, Survey on South Africa, *The Economist*, 8 April, 06. This nation is beginning to provide new leadership for its continent. There are many major challenges, including socio-economic inequity, HIV/AIDS and massive educational needs, but the rainbow dream is worth pursuing.

ENERGY/MINERALS

The Prospects Before Us

J. H. Kunstler, *The Long Emergency: Surviving the Con-verging Catastrophes of the 21st Century*, *Atlantic Books*, 05, examines a world likely to develop if new fuels and technologies never replace fossil fuels at the rate, scale and manner the world currently consumes them. Long before supplies are exhausted, the western way of life, especially suburbia and the globalised supply chain, will have to shift to lifestyles and economies which are far more intensely and increasingly local, with populations who are far less affluent.

P. A. Smith et al report the effects of the increasing hikes in oil prices, both internationally and for the Middle Eastern suppliers, *Middle East*, Nov 05. A major contributor to the current crisis has been long term failure to invest in oil industry infrastructure; the US has not built a new refinery for thirty years. Environmental concerns have been one constraint but reluctance to regulate for fuel efficiency in transport vehicles is another. The costs of extracting oil from new reserves in more extreme environmental conditions, or old fields, is likely to escalate with rising demand from emerging economies. While economic growth is likely to slow, hurting the unemployed, the poor and dependent, it could mean a higher quality of life for those willing to innovate and adjust, such as local farmers. The end of the era of cheap energy is likely to shift global power structures in unpredictable ways, shifting popular values, aggravating inequalities.

The World Bank warns that soaring oil export revenues in the Middle East and N. Africa mask underlying regional economic weaknesses. While four countries have benefited, economic development overall is stagnant, population pressures are mounting and unemployment rates average 20%. Vast social welfare programmes allay public discontent. Communications infrastructure has received significant investment.

Energy strategist **D. Yergin**, *Foreign Affairs*, Mar/April 06, argues for a revised global energy security framework for oil and liquefied natural gas (LNG). Since the 1970s the system is built on the International Energy Agency, strategic oil stockpiles, continuing monitoring of energy markets, plus energy conservation and emergency sharing of supplies. Key principles:- are diversification of supply; a security margin as a buffer against shocks; the reality of integration of all market members; the importance of information. New concepts needed are:- recognition of the globalisation of the energy security system to include China and India plus other key emerging states such as Brazil, by ensuring that they can meet their energy needs, plus acknowledgement that the entire energy supply chain needs to be protected. This latter is enormous as long-distance cross-border pipelines proliferate. Vulnerable points in the marine routes may require multilateral rapid response capabilities. More closely integrated security policies and programmes are needed at all levels and across sectors.

Russia is aiming to be the global leader in the energy industry, building on its large reserves of oil and even more of gas. To this end, the Russian president, **Putin**, has built up a system of state-controlled, partly privately financed, financial-industrial corporations, dominated by one for oils and another for gas. While Western Europe, especially Germany, needs the security of such gas supplies, delivered by pipeline from Russia, the recent attempts by the state owned gas company to cut supply, if briefly, to intermediary state Ukraine, for reasons which could be a demand for higher prices, or for political pressure on Ukraine, have aroused considerable doubts about Russia as a reliable supplier. Contentious proposals for such new pipelines as one under the Baltic Sea, arouse concerns in the Baltic states that their supply could be cut in favour of Germany. *Financial Times*, 4 Jan., 06, p. 13; *The Economist*, 7 Jan., 06, p. 66.

Transitions to Sustainability

Sustainable Energy: Choosing Among Options. J. W. Testor et al, *MIT Press*, 05 is a report of a massive review of energy technologies and resources directed by MIT Energy Laboratory, offering no simple solutions but strongly emphasising the need for sustainability.

Switching to Renewable Power; A Framework for the Twenty-first Century, Ed V. Lauber, *Earthscan*, 05, offers a European perspective on the many complexities in the necessary transition to sustainability. Policies in Denmark, UK, Germany, some US states and for developing countries are examined.

Energy Sector in Transition- Technologies and Regulatory Policies in Flux, U. Jorgensen, *Technological Forecasting and Social Change*, pp. 719-731, 05. This analyses the different policy regimes in use in Denmark for their ability to support technological innovation and the limitations of simple, market-based models.

Sustainable Global Energy: Automobile Transport in the Twenty-first

Century, H. Turton, *Technological Forecasting and Social Change*, 06. This analyses a scenario based on the B2 storyline in the IPCC's Special Report on Emissions Scenarios, with key demographic and economic drivers updated from 1990-2000. Multiple sustainable development objectives are incorporated and technological, economic, fuel production and infrastructure implications of long term realisation are examined. Policy insights for development of a sustainable global passenger transport and energy system result.

Specific Renewables

A. Laschinsky, N. D. Schwartz, *Fortune*, 6 Feb, 06, pp. 74-89, examine the possibilities of ethanol, once seen as an additive to petrol but now as the basis for a fuel revolution. Venture capitalists, Wall St, automakers, environmentalists, farmers and politicians are putting their support behind bio refineries for fuels which switch between petrol and biofuels. Ethanol could become a major energy source within five years.

Smarter Use of Nuclear Waste, W. H. Hannum, G. S. Stanford, *Scientific American*, Dec 05, presents a case for nuclear power as the source for long term energy needs while preserving the environment. A promising new nuclear power technology could minimise the production of nuclear waste, by utilising uranium ore far more efficiently in fast-neutron reactors, combined with recycling of spent fuel by pyrometallurgical processing. This could support nuclear power generation indefinitely, eliminating plant decommissioning problems and the potential for diversion of fuel into weapons. If started now, the first fast-reactors could be in use 15 years hence.

J. Giles, *Nature*, 20 April, 06, pp. 984-986, reports on the economic arguments for and against nuclear power. Establishing the right price is not simple, but present comparisons with alternative fuels raises its advantages, especially if environmental costs are factored in. An economist, **S. Awerbuch**, uses the established portfolio investment method to weight the nuclear case further for government policy makers. A mix of investments provides a maximum yield for a given level of risk. Since nuclear fuel prices are relatively stable, if mixed with a relatively expensive non-fossil fuel source such as wind, the combined fuel costs are much lower than those for fuels subject to price fluctuations.

A. J. Ragaukas et al, *Science*, 27 Jan, 05, provide an expert overview of the genetic, biotechnological, process chemical and engineering developments which underlie new manufacturing concepts for converting renewable biomass to valuable fuels and products in biorefineries.

FOOD & FIBRES

Looking at New Zealand

Visiting UK agricultural consultant **I. Howie** notes how dependent the whole NZ economy is on photosynthesis, with 17% of national GDP coming from agriculture and more than 50% of its overseas earnings. Challenges from interest groups, political and environmental, as well as pricing challenges, can cripple the economy, unless farmers respond to the lurking dangers and respond proactively. If, as has been said by

expert commentators such as the Parliamentary Commissioner for the Environment, that the whole industry needs better understanding of how to react with new initiatives and technologies, in fact a redesign of farming systems, then relevant research and development is critical. Yet this R& D funding for agriculture is being cut, threatening the skills base of researchers who are the key to leading-edge science. *Countrywide*, Sept, 05, p. 34.

Crown Research Institute **Ag Research** has a visionary strategy **2020 Science** with five big ideas to lead the pastoral sector and biotechnology industries through the next fifteen years. These aim to develop new on-farm methods, industry technologies and value-added export products. The Five:- 1. Dairying. Double the value while halving costs and environmental impacts, e.g IT controls to monitor each individual animal rather than manage a herd and use of systems biology to maximise improvements and impacts. 2. Meat and Fibre. Targeted R & D maintains and improves lamb production and new high value products, such as selected feeds for high nutritive value, and lower environmental impact. 3. Pest and Disease Management. Of millions of exotic species, few have been identified and NZ biosecurity has limited funds to identify and control unwanted pests. Priorities include improved trapping systems and collaborative work between agencies. 4. Environment and Community. Urban/rural proximities and misunderstandings, and rivalry for scarcer resources such as water, promote conflict. Improved pastures which reduce nitrogen runoff benefit waterway quality. 5. Use Knowledge and Technologies in non-pastoral areas. Biomedicine and pastoral farming can collaboratively benefit animals and humans, with profit. For example identification of the means by which bovine mammary glands regulate protein synthesis, could lead to specific types of dairy products.

Hawkes Bay farmer **R. Wilson** has future-proofed his farm, by clearing out his waterway (riparian) margins, with financial support from the local Council, fencing them and replanting with native species, to prevent stock from wandering into and contaminating water. Stock farming has been adapted to suit the variety of soils, a wetland has been fenced off, with highly beneficial results for stock and returns, and greater flexibility in introducing new types of crops such as watercress. Such future-proofing would have huge benefits for farms and river systems. *Countrywide*, Nov 05 p. 42.

The Pesticide Detox: Towards a More Sustainable Agriculture. Ed J. Pretty, *Earthscan*, 05. UK environmental academic examines the issues of pesticides worldwide, including health impacts, full cost, role of corporations in shaping modern agricultural production, getting off the "agricultural treadmill," and agro-ecological approaches to pest management. There is enormous potential for reduction in pesticide use.

We Are What We Eat

A Nutrigenomics Conference in Auckland recently heard that in future new foods will be developed to meet our unique health and taste needs as dictated by our genes. Already in US a genetically modified fruit juice is marketed for consumers with iron deficiency. For consumers, food is also health, with self-care nutraceuticals growing in appeal. (NZ) *Horticulture News*, June 06, p. 4.

M. Tobias, S. Vander Hoorn et al, investigated the relationships between mortality rates in New Zealand 1997, inadequate fruit and vegetable intake, and probable improvements if a modest increase could occur by 2011. It was found that 6% of all deaths including heart disease, strokes and some cancers were the result of such dietary deficiencies and that each year 334 deaths could be prevented by the same dietary improvement to 2011. *Australian and NZ Journal of Public Health*, Vol. 30/1 06.

Australian consumers' response to both biotechnological components in foods and natural foods was explored, **S. Lockie et al**, *Food Policy*, Vol. 30, 05, pp. 399-418. Most important variables were found to be the level of motivation to find natural foods; convenience factors; who has the regular responsibility for the shopping; and sex. Women were less favourably disposed to biotechnology in food.

K. Green, C. Foster, investigated the environmental and social sustainability of different food strategies for UK food systems by analysing the whole chain production for the year-round staple, the frozen pea, *Technological Forecasting and Social Change*, Vol 72, 05, pp. 663-679. The fundamental factor for the present system is the transport infrastructure and the need for prompt freezing. Modification in this would require changes in agricultural and food consumption practices.

The Ecologist examines antisocial behaviour linked to diet, building on a significant rigorous experiment in a UK prison 2002, where a four month trial with selected nutritional supplements showed dramatic reduction in problem behaviour. There has been a steady accumulation of earlier studies making similar linkages, particularly in numerous US juvenile and adult correctional facilities. Bad diet is seen as a sounder predictor of future violence rather than past behaviour. It is also considered that poor diets can have impacts on perception and insight, altering individual understanding of right and wrong. Better understanding of the body/mind/ food connection could improve medical and psychiatric approaches to behavioural problems.

Outgrowing the Earth: The Food Security Challenge in an Age of Falling Water Tables and Rising Temperatures, **L. R. Brown, W. W. Norton**, 04. Grain harvests are now falling, after earlier advances, and irrigated area are shrinking in some key food producing areas. China's grain production has declined markedly, and food scarcity is a distinct possibility, with hugely destabilising results.

Halving Hunger: It Can be Done, UN Millennium Project, Taskforce on Hunger, *Earthscan*, 05. While the proportion of those who are hungry globally has declined from one-fifth to one-sixth over two decades, there are over 800 million who are chronically or acutely malnourished. By 2015 this could be halved if seven actions proposals are followed.

Listing

Nature, 22 Sept., 05, pp. 473-474, **G. Sugihara**, a highly skilled mathematical modeller is combining his experience in both financial markets, predicting prices of financial instruments, and as a biological oceanographer. A futures market for fish could provide people with profit and prevent fish stock depletion though a structured market for fish.

FUTURES THINKING

Looking Back and Forwards

Historian **E. Hobsbawm** and banker **J. Attali** debated the relevance of **Karl Marx** for the 21st century, *New Statesman*, 13 March, 06, pp. 28-29, finding that he is perhaps more modern now than previously. Marx believed capitalism had to be global before socialism could develop. As a global force, capitalism would absorb the whole working class, obliterate nations, and technology would transform society. He also foresaw that capitalism could not cope with the tensions and crises of growth. Isolationism and protection and a kind of barbarism result, unless a worldwide system is organised which reconciles the market and democracy.

Foresight and Governance experts, **R. Olson, D. Rejeski** review a century of futures research to evaluate the impact of futurism, *Wilson Quarterly*, Winter 06. While at US government level the impact was strongest three decades ago, many countries are now utilising foresight programmes, leading transnational corporations employ sophisticated future techniques, and the field appears to be evolving positive, realistic images of the future.

P. Dexter, *Futures*, June, 06, has evolved an historical framework to analyse population behaviours in response to stimuli. This can be used to forecast further behaviours in context. It has been tested against societies in South East Asian and South West Pacific countries, and can help to generate plausible scenarios for near and far futures for such societies.

P. van der Duin et al, *Futures*, April, 06, re-examined a study prepared by the **Netherlands Scientific Council for Government Policy** (with whom FTA maintains regular exchange) in 1977. This study, **The Next 25 Years**, containing expert studies in eighteen subsections, looked at potential developments in society as a whole. Conclusions drawn:-1. Topics should be analysed with more diverse and appropriate time horizons instead of all treated the same; 2. More attention should be paid to people and opinions outside the mainstream discourse; 3. More attention should be given to thinking in multiple futures instead of just one outcome; 4. Do not only look at the possible future of a topic but consider its relevance in the further future; 5. Pay more attention to integrating topics but do not try the impossible of linking everything to everything.

Listing

Citizen Cyborg: Why Democratic Societies Must Respond to the Redesigned Human of the Future, **J. Hughes**, *Westview*, 04. The convergence of artificial intelligence, nanotechnology and genetic engineering is pushing humans to the boundaries of humanness and radically improving our quality of life. A "transhuman" era is emerging. Many are fearful, but a transhumanist network is strongly supportive. Among the policy options for managing this development, a middle way is recommended. Four biopolitical positions emerging are:- democratic transhumanism; libertarian transhumanism; Luddite deep ecologists; and right wing bioLuddites.



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