Futurewatch

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An information service on current international perspectives on our futures, prepared by futures scanner **Jennifer Coote**, **Futures Thinking Aotearoa**.

Food and Fibres

Our daily bread and more

- **D.** Nierenberg, Happier Meals: Rethinking the Global Meat Industry, Worldwatch, 05, examines in detail the "inefficient, ecologically disruptive, dangerous, and inhumane way of making meat," (also milk and eggs) on factory farms. Some countries are developing guidelines to educate consumers about the benefits of lower meat consumption.
- **J. Cloud**, *Time (Pacific)*, *12 March 07*, in a search for the perfect apple, explores the debate about organic or conventional, but locally grown. The scientific evidence for the advantage of organics is still unproven, small is not necessarily beautiful and local, raises issues of how local? And is it feasible for our societies?

A weightier examination is conducted by academics **S. Barrientos**, **C. Dolan**, **Ethical Sourcing in the Global Food System**, Earthscan 06, of the global, year-round food supply system and the alternative developments of ethical sourcing and fair trade. Consumer discernment underpins these developments, inspired by alternative visions of trade, but they are not the solution to inequities in global economy.

Population and public health academic **B. M. Popkin** argues that globalisation of food processing, transport, and marketing, combined with the influence of mass media which is penetrating all rural areas, is resulting in a rising epidemic of obesity, which is impacting especially on the poor. *Food Policy, Vol. 31, 06, pp. 554-569.*

The Carbon Trust is a UK government-funded environmental consultancy which is trialing the application of labels to foodstuffs which describe their carbon footprint, showing the quantity of grams of carbon-dioxide emissions associated with their production and transportation. This would give a much more rounded picture than the simplistic idea of food miles. But how far does the carbon cycle extend? *The Economist*, 19 May, 07, p. 81.

The growing popularity of functional foods has provided new challenge to food manufacturers, because of evidence that much of the supposed benefits are not surviving to reach the intestines. Technologies under development include: - protective packaging which keeps the required ingredients separate until actual consumption time; encapsulation, in which foods, like pills, are coated to

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withstand even the stomach acids; and flavanoids, oily substances mixed as tiny molecules into foods. New Scientist, 2 Sept, 06, pp. 24-25.

Free Trade Agreements between China and Australia and New Zealand are arousing concerns from horticulture producers in both countries as they could face intense competition from the hundred times larger Chinese vegetable industry. Consumer access to fresh, flavoursome and wholesome vegetables could be threatened because Chinese growers do not have to meet the stringent food and safety regulations required of Australasian producers. Already Hong Kong and Singapore are restricting Chinese produce because of concerns regarding high levels of chemical residues. Some of the produce is more likely to be arriving in processed foods such as stir-fries. Country of origin labels are being required in Australia for fresh fruits, vegetables, nuts and seafood, including those in plastic wraps. *Grower (NZ), Aug. 06, pp. 14, 16, 30-33.*

Researchers are aiming to grow cultured meat in sufficient quantities for an alternative resource supply, especially for vegetarians. Muscle cells can be easily cultivated in a nutrient broth, but getting them to form into something resembling real meat is much harder. Fish, and even minced pork for sausages, are some of the possibilities. The Economist: *Technology Quarterly, 23 Sept 06, p. 8.*

(Mostly NZ) Farmgate concerns

Sociologist **P. Mancus**, *Rural Sociology, Vol. 72/2, 07*, examines the problem of nitrogen fertilizer dependency in the agro-food industry The amount of energy involved is recognised as wasteful, undermining the biological basis of agriculture, but the social and structural features of industrial agriculture also need to be scrutinised. He offers a concept of social-ecological metabolism which is applied to food security issues. It clarifies human interactions with the natural world.

A contribution to the debate about the role of N Zs highly profitable and rapidly expanding dairy sector in the national output of greenhouse emissions came from **G. Salmon, Ecologic Foundation**, promoter of a sustainable future, reported in *The Independent, 4 April 07, p. 14*. Market signals are advocated to guide investment in the agriculture sector, but these should factor in the costs of pollution cleanups, repair of habitats and coping with other farming impacts. The government, by setting aside millions to meet Kyoto liabilities, is covering a subsidy to the dairy sector and to its giant processing industry, Fonterra. Other impacts include on-farm energy use, including heavier fertiliser use, and increasing irrigation which needs regulation by more market prices. Driving all this are rising land values and untaxed capital gains. Ecologic recommends the example of the Nordic countries who have established a politically determined set of national environmental quality objectives. N Z farmers would need help through the transition period to cope with costs.

M. Head, *The Listener*, 20 Jan, 07, pp. 38-39, describes a revolutionary device for NZ pastoral farms which has a range of highly beneficial results for farms and environmental management. Cow "loos" are animal shelters with clear plastic roofs, incorporating springy, dry, pre-stressed, slatted concrete floors which allow manure to fall through to storage bunkers. Advantages include reduction of nitrogen leaching into waterways, enabling animal effluent to be recycled on farm, reduction of need for

artificial fertiliser, shelter for animals from extremes in weather, especially climate-change-induced increased heat and UV and overall improvement in animal well-being resulting in increased production.

A specialist NZ research institute is being established to develop vaccines to control infectious, costly diseases affecting livestock. Bovine TB is transmitted by wild opossums and affects cattle and deer. If by 2013 these stocks are to be TB-free, a vaccine administered by an oral bait should be available. Other novel vaccines for TB in cattle are being developed for the overseas market, with further research underway on avian influenza in domestic poultry and on mastitis in cows. *NOW, (Ag Research), Jan 07.*

International farm concerns

Crop variety for fruits, vegetables and grains, which were formerly plentiful, are fast dying out. A specially-built, international storage facility is being developed on a remote Norwegian island, the world' first comprehensive effort to protect the global resource of agricultural seeds. Other existing seed repositories are fragmentary and insecure. *Wired, June 07, p. 176-177.*

The deadly virus which causes black stem rust in wheat appeared to have been defeated in the mid 1950s. Now it has emerged in far deadlier strains in E. Africa, and is spreading to Yemen from where it could be wind-spread to India. Development of more resistant wheat strains and fungicides could enable areas at present unaffected to slow the spread of the disease. *Science*, 30 March 07, pp.1786-1787.

Time (Pacific), Sept 06, pp. 39-40, reports that the Gates and Rockefeller Foundations are funding a massive five-year investment to boost Africa's capacity to feed itself. Hardy new varieties of seeds are required for a variety of adverse conditions, bred by a new generation of African scientists, a number of them women, familiar with local conditions. But even more critical is the near absolute degradation of the soil resulting from repeated cropping to feed the growing populations. Chemical fertilizers are likely to be necessary.

Science, 12 Jan 07, pp. 182-183, reports that the first African-developed, GM modified crop has been developed in Durban, a maize incorporating an antibiotic-resistant gene against maize streak virus, which hold true through a number of generations. This maize could be supplied at reasonable cost and could give GM crops a new image in Africa.

Previous studies using crop models have suggested that crop growth could be enhanced by increased carbon-dioxide concentrations. **Long et al**, *Science 30 June*, 06, used sophisticated computer-controlled micrometeorological system in a diversity of locations to enrich the air above a target area without otherwise altering the growing environment. The results are far lower than previously anticipated.

What about fish?

A major, worldwide data analysis of biological surveys from a diversity of fishing areas, coastal and oceanic, shows that fisheries could be headed for collapse by 2050 if present activities continue. But there are hopeful aspects; the higher the level of fish biodiversity sustained in an area, the better the chance of fishery survival since

there may be greater diversity of food choices. Protected marine reserves can also help recovery. *New Scientist*, 11 Nov 06, p. 10.

The Swarm: a Novel of the Deep, F. Schatzing, Regan Books (Harper Collins), 06. A **Day-After-Tomorrow** view of accelerated threats to the life of the oceans and global impacts, as the oceans turn deadly.

Attempts to limit bottom and pelagic (mid water) trawling in the S. Pacific collapsed at an international meeting trying to devise rules for **S. Pacific Regional Fisheries Management**, late 06. The EU (apparently protecting the fisheries interests of Irish and Dutch super-trawlers), Russia and S. Korea refused to agree though other S. Pacific nation and interests supported the draft proposals. The super-trawlers have already fished out the W. African resource. *ECOlink (NZ) Dec 06*, p. 4.

Antarctic Krill is the keystone species for the S. Oceans; it sustains the whole food chain, as well as being an important resource for onshore industries. Research is being conducted into the impacts on Krill from persistent organic pollutants (POPs) which are attracted to colder climates. A recent Convention has limited POP use in developed nations but they continue in developing countries. *Australasian Science, March 07, pp. 20-21*.

Water & Atmosphere (NIWA), Vol. 14/3 06, reports on the work of this Crown Research Institute into problems and possibilities for the development of NZ aquaculture, and marine products. Potential biotechnological products are being investigated in a three-way partnership with medical, and food/ crop research centres, after screening thousands of marine products to identify bioactive compounds for natural remedies. These can later be synthesised for anti-inflammatory medicines, skincare products and other applications. The potential market is huge.

Marine bacteria are found throughout the ocean from seamounts to fish guts. Potentially their enzymes could be harnessed for commercial applications, from aquaculture feedstuffs to washing powders. A sea sponge found to have an anti-cancer potential will need to be synthesised to provide enough agent for commercial use. Abalone (paua) aquaculture could reach its true potential now that the conditions for optimum hatching have been identified.

Economics/Business

Variations on a financial theme

A Demon of Our Own Design: Markets, Hedge Funds and the Perils of Financial Innovation, R. Bookstaber, Wiley, 07. The lowly cockroach, a long-term survivor with a rudimentary defence system capable of dealing with the unanticipated, is a useful icon for investors who seeking better understanding of financial risk. The writer, who was for several decades an innovator in the sophisticated system which links securities and various markets, provides a tough but engaging read.

A simpler guide is **The Alchemists of Finance, a Survey of the International Banking System**, *The Economist, 19 March 07*. The systemic risk is like a hot potato, to be passed on as rapidly as possible, and thus ends up in unexpected corners, including the consumer.

Financial Times, May 25 07, p. 7, reports in detail on a rapidly emerging, huge force in global markets and economies, the sovereign wealth funds, which utilise the astronomical reserves held by some governments. The growing need to earn better returns from these reserves, rather than putting them into passive US treasury Bonds, raises expectations that within five years these funds will be as great as the official national reserves. China is already establishing its own SWF, as are some Middle Eastern nations. The operation of these funds is not transparent, raising uncertainties about their possible impacts as they increase in market share.

- **B. Steil**, *Foreign Affairs*, *May/June 07*, examines the rise of monetary nationalism. Such attitudes are dangerous in a globalised world, fuelling crises and increased political tensions. As it is no longer possible for economic development to proceed outside of globalisation, national currencies should be replaced with currency units like dollars, euros or new multinational currencies.
- **R. W. Hefner** explored the connections between Islamic economics and global capitalism in a symposium at Boston University, *Society, Nov/Dec 06*. The decline of Islam's commercial innovation and expansion after the twelfth century, has coloured the present response to perceived western models of modern capitalism. Basic to such economic thought is the belief that the faith provides an all-encompassing model for social, economic and political life. In recent decades Islamic economic thinkers seek a third way between the excesses of modern capitalism and ways to encourage economic enterprise.

Two key policies are:- Islamic banking which avoids charging interest, and "zakat, a religiously mandated almsgiving. Islamic banks have developed a number of lending instruments based on profit-and-loss sharing, similar to venture capitalism. Islamic banks are becoming more widespread, including in Western countries. "Zakat", a tax levied on income and wealth to provide for the poor and handicapped, has usually been applied in a voluntary, decentralised way, though Saudi Arabia, Pakistan and Malaysia administer it through state agencies. Fundamental to the continuing tensions between the faith and present realities is the Islamic injunction to treat ethics as a public good.

Energy/Minerals

The international arena.

Energy for the 21st Century: A Comprehensive Guide to Conventional and Alternative Sources, R. L. Nersesian, M.E. Sharpe, 07, is lucid, hugely informative and covers all the conventional sources and the major, feasible alternatives, with additional studies on such aspects as climate change issues, conservation and more.

F. Leverett, P. Noel, international relations experts, examine the new axis of oil, *National Interest, Summer 06*, where shifts in the energy markets can be summed up as "petropolitics", with Venezuela, Iran, Russia and China acting as counterpoise to US hegemony. The key aspects:- the dramatic rise in demand markets from emerging states such as China and India; the shrinking, surplus productive capacity of the international oil market; and the uncertainty regarding the capacity of producers to expand production.

This upstream sector is increasingly under the control of state-owned companies, not publicly traded companies, with a cartel of resource-owning governments along-side the cartel of oil producers. Russia is using this power to tighten its economic and political power over its near abroad, including Central Asia, while China's all-out quest to secure oil supplies is challenging not only the US power in several regions but also the rules based international energy trading and investment order the US has fostered.

Nuclear energy programmes are being planned and developed by Egypt and Turkey, with Turkey announcing plans to build three new plants by 2015. Russia, China and US are competing to develop the renewed Egyptian programme, for three plants by 2020, while China recently announced a collaborative accord with Egypt to develop nuclear energy. *The Middle East, Feb 07 pp. 44-45*.

P. A. Steenhof, W. Fulton, *Technological Forecasting and Social Change, Vol.* 74, 06, pp. 779-797, use three scenarios to examine in detail China's electricity sector, growth, character, and its economic and carbon emission impacts by 2020.

India has a number of international, natural gas pipeline proposals in process. One, under negotiation over a decade, would run from S. Iran to the Indian state of Gujarat, and also supply Pakistan. Strong security guarantees sought and price disagreements delay agreements. Meanwhile India is seeking to participate in a proposed Turkmenistan-Pakistan pipeline via Afghanistan, and another pipeline from Myanmar.

Energy and sustainability

Scientific American, Sept 06, is devoted to getting a grip on greenhouse gases, with eminent contributors outlining existing technologies and the need for the planning and will to carry the action through. In particular **R. H Socolow, S. W. Pacala** propose a carbon-checking strategy based on seven "wedges" which can be chosen from fifteen such technologies. Each of the seven, if phased in over fifty years, can prevent the release of twenty-five billion tons of carbon. Meanwhile the next generation of carbon reduction technologies can be researched and developed.

Science, 9 Feb, 07, Special Section, Sustainability and Energy, provides a wide variety of new on research into the sustainable energy technologies and the problems of funding and policy issues.

P. Kinrade, *Futures*, *March-April* 07, looks towards a sustainable energy future for Australia. Significant barriers include economic structure, misdirected energy market reform and lack of visionary thinking by decision makers. Hope lies in the broader community which would, in such a desired future, become empowered as knowledgeable and active participants in energy markets.

The promise of biofuels

The US promotion of corn-based ethanol could have health downsides as well as unexpected environmental impacts, *New Scientist*, *21 April 07*, *p. 7*. Such ethanol produces twenty times as much acetaldehyde as conventional fuels. This reacts in sunlight to produce smog.

A recent conference of US and Brazilian experts on the agricultural implications of increased biofuel production, is reported in **Brazil Institute**, April 07, (see www.

wilsoncenter.org/brazilportal). Ethanol could be developed into a global commodity through joint US-Brazilian co-operation. Today they produce 72% of global supply. Brazil's fuel-flex light cars form 80% of the national car sales. Brazil can readily encompass far greater sugarcane production, the environmental impacts are minimal, but the major problems lie in transport and production infrastructure and investment.

A more detailed examination of the merits of, and research into, various grasses which could provide efficient biomass stocks for ethanol, see *Nature*, 7 *Dec* 06, pp. 670-676.

"Treethanol' could be a more highly energy efficient biofuel than corn or sugarcane because of the much greater ratio of energy yielded in relation to the energy needed to produce the fuel, the energy balance. This is true also for grasses and other sources high in cellulose. Production costs are much greater at present for treethanol, also called cellosic ethanols, because a complex mix of expensive enzymes is needed to break down the cellulose. Research in US and Denmark is rapidly devising better, cost-efficient technologies. Trees are year round crops requiring limited inputs. NZ is particularly well placed to be a suitable treethanol producer and its Crown Research scientists are working with the Danes to develop a feasible production model to supply all the nation's vehicles. *The Economist, Technology Quarterly, 10 March 07, pp. 14-15*.

The use of plants to make high grade plastics, which could, for example be used in cars, is a dream which Japanese vehicle researchers are attempting to realise. Progress so far is very slow. *Nature*, 12 April 07, p. 715.

Listings

e.nz, *Nov-Dec.06* **Time for a Sea Change**, **A. McKenzie** reports on fourteen projects around NZ to develop marine power technologies.

Fuel Cells Set to Switch Trains Onto a Greener Track, New Scientist 17 March, 07, reports on Japanese prototype railcars running on hydrogen fuel on a regular passenger track.

Earth Audit, D. Cohen, *New Scientist, 26 May 07*, reports on a German study into the fast rate of depletion of some rarer, but crucial elements, such as indium, platinum, gallium and others, some of which could run out within a decade. Some promising new technologies may never reach development because there is insufficient supply of these component elements.

Futures Thinking

Dreamtimes

Futures, Mar-April 07, is devoted to **Redreaming Australia**. A range of contributions examine aspects of the present and possible futures. Editor **M. Findlay** introduces the intention, a call for a radical systemic change, intellectual and cultural, civil and public, in the ways by which Australians relate to each other, to their unique biological heritage, to the ecological communities and with those overseas, especially in Asia. Dreams are reinterpreted in our brains as stories and as such they have the narrative power to change the world. They are ways to weave new material into the memory

system whereby we are enabled to cope with stressful events. Australian Aborigines consider the Dreamtime as an existence that defines the relationships of everything that is and was.

One contributor, **J. Camilleri** offers an optimistic vision of the synergy which can be achieved by combining traditional Aboriginal wisdom with the technical know-how of newer settlers, and a residual sense of social solidarity, in a reconciliation of place, history and culture He offers an Agenda for Change whereby this can be achieved.

- **J. Alexander, C. Riddington** focus on the two-thirds of Australia's landmass now utilised for agriculture and pastoral production. Their reconsideration of a changing Australian land ethic leads to three 'dreamings' of parts of Australia, a century ahead: the Murray-Darling Basin, the northern tropics and the eastern coasts. Other contributions cover the Aboriginal peoples, the nation state, the NGO communities, ecoinnovations, freshwater, rivers and energy resources.
- **B. Groombridge**, *Political Quarterly, April-June 06*, examines the work of **Finland's** unique **Parliamentary Select Committee of the Future** (1993), which conducts research and dialogues with the Prime Minister's office and government on all the foreseeable long-term issues affecting the policies and work of whatever government is in power. Its seventeen members reflect the political composition of the Parliament. In addition to its contributions to government, and to other select committees, it is responsible for assessing technological developments and their wider social impacts. The major challenges facing Finland include:-globalisation, serious implications of climate change and a rapidly ageing population.

A Forum of the Experienced and the Wise, a cross-section of about sixty retired people, is used consultatively, and these also maintain contacts with a range of community sectors including young people. Public seminars are held regularly throughout the country to inform and to involve the public.

Assessment of the success of this Committee is cautious because it has only functioned for a decade. Commentators have noted the core tension of trying to contain an innovative future function in a traditional institution such as Parliament. Its focus on the longer term is valuable however, in the short-term framework of the political process. In 2005 The **Scottish Parliament**, impressed by the Finnish experience, set up a **Future Forum** as a company, at arms' length from itself.

Global Survival: The Challenge and its Implications for Thinking and Acting, Eds E. Laszlo, P. Seidel, Select Books 06, comes from the Club of Budapest, a group promoting "survival research". They focus on the multiple, complex issues involved in the major challenges, principally conflictual and environmental, to human survival. They examine how to change the human response. Individuals, researchers, policy makers and national leaders are all faced with wrenching changes in attitude and in behaviour.

Peace/War /World Affairs

On democracy

Democracy and Futures, Eds M. Mannermaa et al, Parliament of Finland Committee for the Future, 06 (Free in English tuv@parliament.fi) is a galaxy of lead-

ing futurists' contributions to the centenary of the Finnish Parliament. Seventeen contributors provide a wealth of futures possibilities and explore the challenges.

The Central Liberal Truth: How Politics Can Change a Culture and Save it from Itself, L. E. Harrison, O.U.P. 06, is based on a Culture Matters Research Project in which over sixty experts from twenty-two countries identified the values and attitudes that influence the political/economic and social evolution of societies and the instruments which transmit these values. This dimension has been ignored both by politicians and development institutions. Two broad Progress-prone and Progress-resistant cultures are summarised.

Web Campaigning, K. A. Foot, S. M. Schneider, MIT Press, 05 is an academic analysis of a thousand US websites in the last four US Campaigns since 2000, revealing the strong influence this new technology is having and is likely to continue to have, as it reshapes US democracy.

The United Nations, Peace and Security, R. Thakur, Cambridge Univ. Press, 06, is both academic and informed by the writer's experience as a UN Assistant Secretary-General. Despite its admittedly many weaknesses, and the need for reform, this institution is the principal provider of international security in four major areas: as an international peacekeeper, in provision of "soft security" through human rights, international justice etc; governance for "hard security" such as nuclear, a chemical weapons control; and through its own governance institutions.

Third World Quarterly, Vol. 27/5 06, Special Issue on Reshaping Justice: International Law and the Third World, R. Falk and other experts contribute a variety of general, regional and specific T.W. perspectives at a critical period when inequalities between the richer and stronger, and the poorer and weaker, are widening.

Conflict and security issues

P. R. Lavoy, *Nonproliferation Review, Vol. 13/3. Nov 06*, explores the causes, warning signs and policy responses for nuclear non-proliferation over the next decade. New countries could be tempted to join the nuclear club under certain conditions, but there are warning signs giving indication of such intention, which if noted, enable counter responses to be utilised more effectively. The concept of nuclear myths and mythmakers is described from past experiences and can usefully be applied in such policy development.

Atmospheric scientists **O. B. Toon et al**, *Science*, 2 March 07, pp. 1224-1225, provide quantitative assessment of the potential for casualties in a regional-scale nuclear conflict or terrorist attack and the associated environmental impacts. An exchange of 100 weapons of 15 kiloton yield each would be within the capacity of the S. Asian states, and are assumed as targeted on major urban centres. Environmental impacts beyond the centres would include smoke aerosols persisting in the middle and upper atmosphere for a decade. Indirect effects on surface land temperatures, rainfall and growing season would degrade agriculture to an extent that would lead to wide-spread famine. There would also be indirect effects on transportation, energy, medical, political and social infrastructure. The indirect effects would cause more casualties than the direct ones.

The Logic of Violence in Civil War, S. N. Kalyvas, Cambridge, Univ. Press, 06, is a major, thorough, academic study which covers both a coherent theory of irregular war, and a foundational theory of violence and its deliberate and indiscriminate variants. The quality of control which a political actor exerts on particular region shapes the population's willingness to collaborate, and the two types of violence flow from this.

Foreign Policy, July-August 07, with the Fund for Peace present the third annual survey of their Failed States Index. State failure is acknowledged to be little understood, though rampant corruption, predatory elites and an absence of the rule of law are recurrent features. Otherwise these states are diverse. Currently eight of the top ten are in sub-Saharan Africa, topped by Sudan, Chad and Equatorial Guinea. China and Russia moved out of the list of the sixty worst. There is a strong correlation between stability and environmental sustainability, making Bangladesh, Egypt and Indonesia increasingly marginal.

The Political Economy of Terrorism, W. Enders, T. Sandler, Cambridge Univ. Press, 06. These analysts use game theory and statistical data on terrorist behaviour to explore many aspects of the issues and possible policies. They conclude that terrorism is here to stay, it levels the playing field between the apparently strong and the weak. Cycles of activity and ingenious new methods will feature while the nuclear threat is less likely than chemical ones.

B. Buzan, *International Affairs, Vol. 82/6, 06*, examines the possibility of the War on Terror becoming the New Cold War and concludes that the GWoT, with its emphasis on macro security, contradicts an economic order based on liberal values. Europe provides a model for a more balanced, resilient approach, where terrorism is part of normal politics. Leadership in this situation needs to be brave, honest, determined and probably charismatic.

The Roots of Terrorism, Ed. L Richardson, Routledge, 06 reports from a high level Summit of over two hundred leaders and experts which sought to build a common agenda on how the community of democratic nations can most effectively confront terrorism. Many of the policies are parallel to the need for policies to mitigate the global impact of rapid socio-economic change.

The Global Gun Epidemic: From Saturday Night Specials to AK-47s, W. Cukier, V. W. Sidel, Praeger Security International, 06. A co-founder of Canada's Coalition for Gun Control and a leading member of the US Public Health Association and Physicians for Social Responsibility apply a public health lens to the global gun epidemic. Tens of thousands are killed annually in USA, Colombia, and S. Africa. Two thirds of the gun total is in civilian control. US plays major role, as a producer, in civilian gun ownership, through its fragmental regulation and its powerful NGO which defends the ownership and use of firearms. Highly informative.

Constructive Conflicts: From Escalation to Resolution, (Third Ed) L. Kreisberg, Rowan and Littlefield, 07. This examines why some struggles deteriorate into destructiveness for all involved, and others do not. Stages are:- bases; manifestation (where strategies can prevent further deterioration); escalation, usually lengthy; de-escalation, which eventually arrives and where coercive and non-coercive measures and outside intermediaries can contribute; and termination, which can be final

or can lead to renewal of struggle. Awareness is increasing about constructive conflict management.

Looking South and North-by-East

Securing Australia's Antarctic Future, A. Bergin, M. Hayward, Australian Strategic Studies Institute, reported **M. Field, D. Dickens**, *Dominion Post (NZ)*, 7 *April, 07 p. A1*. Australian and NZ Strategy policy experts are concerned that regional fighting capacity needs to be boosted in the face of possible threats to resources in Antarctica. Both nations have territorial interests and scientific presence on that continent, although it is demilitarised under the terms of the 1959 Antarctic Treaty. If oil reached US\$200 a barrel there will be very strong interest in this region .

M. Hayward et al, Australian Journal of International Affairs, Vol. 60/3 Sept, 06, examine Australia's interests in Antarctica:- its quiescent territorial claim, its scientific research, particularly related now to climate change, active role in environmental (including marine) resource protection through international agreements, concerns regarding sustainable utilisation of marine resources in the adjacent Southern Oceans threatened by illegal fishing, problems with increasing tourism and the longer-term issues of mineral exploitation after present agreements expire 2048.

Australian Journal of International Affairs, Vol.60/3 September 06, M. G. Morgan, A. McLeod examine Australia's attempts at conflict resolution and state building in Melanesia, and in particular the conduct of Regional Assistance Mission to Solomon Islands (RAMSI). Much greater awareness of, and sensitivity to, local conditions, and consequent adaptation of international best practice, is required for successful interventions especially if these are to promote state building. Otherwise local irritation with RAMSI will escalate.

Islands Business, April 07 pp. 34-35, regards the role of Chinese state-owned corporations gaining access to Pacific resources as serious issue in Papua New Guinea's political system and elsewhere. China is on a steep learning curve as it puts its vast capital savings to work overseas to meet its resource needs. The vast new Ramu nickel mine in PNG, an open-cast arrangement shipping ore directly to China, is owned by a Chinese corporation which is the world's twenty-sixth biggest contracter, growing 30% annually. Locals are concerned at the lack of community consultation, the special concessions made to the company, the lack of entrepreneurial opportunities for locals as Chinese move in, the probable use of imported Chinese labour and the bad treatment of any local labour involved.

ASEAN and East Asian International Relations: Regional Delusions, D. M. Jones, M. L. R. Smith, Edward Elgar, 06, is a stimulating critique of the prevailing academic discourse which optimistically sees an evolving East Asian region. There are divergent economic development models among ASEAN states, who follow their own interests within the shell of regional institutions such as ASEAN.

M. C. Nussbaum, The Clash Within: Democracy, Religious Violence and India's Future, Harvard Univ. Press, 07, disagrees with the theory of the clash of civilisations. Rather, in a nation such as India, there is clash between those who are prepared to live with others who are different on terms of equal respect, and those who seek the domination of one religious and ethnic tradition. India can teach the Western

world much about living with differences. Nussbaum is especially observant, from experience, of the role of India's women in shaping social justice and notes that states such as Gujarat, which has very rapid rates of economic growth, are backward in provision of education and health while fervently supportive of the Hindu nationalists.

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