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Environmental Law in Post-colonial Societies: Aspirations, Achievements and Limitations

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A. Introduction: From Colonialism to Post-colonialism

Nations differ in their aspirations and achievements concerning environmental law and policy. The starkest differences exist between the industrialised Western nations and their former colonies in the developing world.[1] While the discourse of sustainable development has been embraced by nearly all governments worldwide, its relevance to and implementation in post-colonial societies remain problematic.[2]

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[1] Good overviews of environmental law and policy in the developing world include: N Islam *et al* (eds), *Environmental Law in Developing Countries: Selected Issues* (IUCN, 2002); AM Halvorssen, *Equality among Unequals in International Environmental Law: Differential Treatment for Developing Countries* (Westview Press, 1999); B Chaytor and R Gray (eds), *International Environmental Law and Policy in Africa* (Springer, 2003); A Thomas, S Carr and D Humphreys (eds), *Environmental Policies and NGO Influence: Land Degradation and Sustainable Resource Management in Sub-Saharan Africa* (Routledge, 2001); MAM Salih and S Tedla (eds), *Environmental Planning, Policies and Politics in Eastern and Southern Africa* (St Martin's Press, 1999); JT Roberts and ND Thanos, *Trouble in Paradise: Globalization and Environmental Crises in Latin America* (Routeldge, 2003); GJ MacDonald, DL Neilson, MA Stern (eds), *Latin American Environmental Policy in International Perspective* (Westview Press, 1996); NP Peritoire, *Third World Environmentalism: Case Studies from the Global South* (UP Florida, 1999); B Boer, R Ramsay and DR Rothwell, *International Environmental Law in the Asia Pacific* (Kluwer, 1998); R Mushkat *International Environmental Law and Asian Values: Legal Norms and Cultural Influences* (UBC Press, 2004); AJ Bolla and TL McDorman (eds), *Comparative Asian Environmental Law Anthology* (Carolina Academic Press, 1999).

[2] AD Hecht, 'The Triad of Sustainable Development: Promoting Sustainable Development in Developing Countries' (1999) 8(2) *Journal of Environmental & Development* 111.

This chapter canvasses the aspirations, achievements and limitations of environmental governance in post-colonial countries. It does not probe in detail the experiences of any particular jurisdictions. Rather, it explores sustainable development policies and environmental law reforms and their set-backs through the lenses of several overarching themes. These are: the environmental regulatory challenges in the most rapidly industrialising economies (predominantly in East Asia); the tension between nature conservation and local communities' social and economic needs; and regulation of transnational corporate activity in developing countries. Before canvassing these themes, the next section outlines the key challenges for building effective environmental law in post-colonial societies. Ultimately, the chapter aims to explain why developing countries have struggled to develop effective environmental law, and what kind of reforms could turn things around.

The difficulties of post-colonial states in building effective systems of environmental governance reflect many causes, including structural weaknesses and normative flaws in international environmental law and its sustainability discourse,[3] the inequities of the global economy especially the international trade and financial systems,[4] the legacies of colonial rule, as well as various institutional and political factors endogenous to post-colonial societies.[5] The combination of unsustainable resource consumption by industrialised nations (and their companies), and the chronic conditions of poverty in the developing world, has created in post-colonial societies some of the planet's severest ecological and social problems.[6]

'Post-colonial states' are those that arose in the decolonised countries of Africa, Asia, Latin America and Oceania. These states are also commonly referred to as 'developing countries', 'less developed countries' or 'industrialising states'.[7] However labelled, they are not a homogenous group. There is immense variety and difference among the more than 130 states conveniently characterised as members of the Third World.[8] East Asia's industrialising tigers, for instance, are faced with ecological problems and governance challenges that differ markedly from the poorest agricultural economies of Sub-Saharan Africa. But what marks these nations as an identifiable group is their shared history of colonisation and

[3] For its historical roots, see D Kelly *et al, The Economic Superpowers and the Environment* (WH Freeman, 1976); and Chaytor and Gray, above n 1, for a recent perspective.

[4] S Mallaby, *The World's Banker: A Story of Failed States, Financial Crises, and Poverty of Nations* (Penguin, 2004).

[5] AH af Ornas and MA Mohamed Salih (eds), *Ecology and Politics: Environmental Stress and Security in Africa* (Scandinavian Institute of African Studies, 1989).

[6] C Zheng-Kang, 'Equity, Special Considerations, and the Third World' (1990) 1 Colorado J Intl Envtl L 57. Commission for Africa, *Our Common Interest: Report of the Commission for Africa* (Penguin Books, 2005).

[7] It should be borne in mind that the category of post-colonial states cannot always be equated with developing countries. Some countries such as China in the 19th century did not fall under direct colonial rule, although they suffered indirectly.

[8] W Langley, 'The Third World: Towards A Definition' (1981) 2 *Boston College Third World LJ* 1.

subordination to the geo-political interests of the advanced capitalist economies. Part of that shared history is the legacy of colonial resource management policies. When colonies obtained 'flag' independence, the environment they inherited was already severely damaged from years of exploitation by colonial administrations.

Today, post-colonial societies face new but equally serious threats. Trade liberalisation, foreign debt burdens, transnational corporate investments and International Monetary Fund structural adjustment programmes are elements of a global economic system that can undermine socially just and ecologically sound development for post-colonial societies. Even the remedial discourse of sustainable development seems to be mired in these inequities. Although several principles of sustainability address the plight of the most disadvantaged nations—eg, the concepts of 'intragenerational equity' and 'common but differentiated responsibilities'[9]—the sustainable development discourse has tended to reflect Western institutions and interests.[10] Thus, explains Geisinger:

> Sustainable development is not just a reflection of Western ideology, but a force for defining environmental problems in Western terms. The ecocratic discourse that has developed around the principle of sustainable development serves to further marginalize any conception of environment that does not fit into the Western framework. Its implementation assumes the ability of science to develop technologies to limit environmental damage while ensuring material growth. Such a scheme has no place for other conceptions of the human/nature relationship.[11]

Properly to evaluate the prospects for competent environmental governance in post-colonial states, one must consider the character of the colonial state and its environmental laws. The capacity of post-colonial states to internalise and enforce environmental norms is still affected by the legacy of the colonial administrative apparatus. Colonial authorities were not uninterested in the environment, and occasionally passed regulations on rivers, mining and wildlife to facilitate their orderly exploitation and management.[12] Colonial states, by definition and practice, were designed to serve economic and political ends that were often at odds with the long-term interests of the colonised. Power tended to be centralised in the colonial capital and exercised insensitively without the participation of

[9] DB Magraw, 'Legal Treatment of Developing Countries: Differential, Contextual, and Absolute Norms' (1990) 1 *Colorado Journal of International Environmental Law & Policy* 69; EB Weiss, 'In Fairness to Future Generations and Sustainable Development' (1992) 8 *American University Journal of International Law & Policy* 19.

[10] Compare Ellis and Wood, this vol. But see S Lele, 'Sustainable Development: A Critical Review' (1991) 19 *World Development* 607.

[11] A Geisinger, 'Sustainable Development and the Domination of Nature: Spreading the Seed of the Western Ideology of Nature' (1999–2000) 27 *Boston College Enivironmental Affairs L Rev* 68.

[12] Eg, in the then West African Gold Coast: Concessions Ordinance was passed in 1900, the Ordinance for the Preservation of Wild Animals, Birds and Fish in 1901, Rivers Ordinance in 1907, Mosquitoes Ordinance in 1911 and Forest Ordinance in 1927: see F Botchway, *Environmental Law in Ghana* (Kluwer, 2004) 27–9.

colonial subjects.[13] In this schema, natural resources were managed principally to serve imperial markets, while colonial administrations propagated new discourses and practices for the utilitarian and instrumental management of nature.[14]

In their preoccupation with economic exploitation of the colonies' bounty, colonial powers created few institutional structures for good governance. The institutions of 'indirect rule' established in the British colonies, which combined British-style local government with tribal authority, were perhaps a rare exception.[15] As Mgbeoji observed, 'in many cases the colonial bureaucracy was designed as a mechanism to facilitate the economic exploitation of natives and their resources in such tasks as mining, logging of forests, and the production of raw materials for the cosmopolitan imperial cities'.[16] The legacy today has been a continuation of inappropriate centralised government decision-making and frequent reliance on cumbersome, authoritarian modes of regulation, which together tend to disenfranchise local communities closest to nature.[17] Post-colonial scholars thus wish to remind us that the accession of post-colonialism was 'prematurely celebratory',[18] as significant political and economic disequilibria remain, not merely between the West and developing countries, but within post-colonial societies.[19]

B. Building Blocks for Envirnmental Law

1. Emergence of Environmental Law in Colonial and Post-colonial States

There is no shortage of environmental laws in the developing world. Apart from 'failed states' such as Afghanistan and Somalia where there is little semblance of effective government, most nations have marshalled a seemingly impressive array of environmental legislation. As with developed nations, there have been certain common steps in the historical evolution of their environmental regulatory regimes.

[13] JS Wunsch and D Olowu (eds), *The Failure of the Centralized State: Institutions and Self-Governance in Africa* (Westview Press, 1990).

[14] RH Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens, and the Origins of Environmentalism 1600–1860* (Cambridge UP, 1995); AP Kameri-Mbote and P Cullett, 'Law, Colonialism and Environmental Management in Africa' (1997) 6 *Review of European Community and International Environmental Law* 23.

[15] HF Morris and JS Read (eds), *Indirect Rule and the Search for Justice* (Clarendon Press, 1972).

[16] I Mgbeoji, *Collective Insecurity* (UBC Press, 2003) 33.

[17] D Rothchild and N Chazan (eds), *The Precarious Balance: State and Society in Africa* (Westview Press, 1988); CY Thomas, *The Rise of the Authoritarian State in Peripheral Societies* (Monthly Review Press, 1984).

[18] A McClintock, *Imperial Leather* (Taylor and Francis Books, 1995) 12–13.

[19] See generally A Memmi, *The Colonizer and the Colonized* (Beacon Press, 1991); G Rajan and R Mohanram (eds), *Postcolonial Discourse and Changing Cultural Contexts* (Greenwood Press, 1995).

During the early years of post-colonialism, newly independent governments ushered in constitutional reforms that saw the elevation of economic policy matters into constitutional legal discourse. This emanated from a desire to nationalise the 'commanding heights of the economy' and achieve economic independence.[20] These constitutional provisions often had significant environmental implications. For example, the Mexican constitution of 1936 vested all natural resource exploitation in state-owned companies.[21] Such provisions did not change the ethos of environmental practice associated with the colonial economy. If anything, they supported the degradation of the environment in a self-righteous justification of the need for accelerated development of the post-colonial economy.

On the other hand, there were other aspects of the independence constitutions that indirectly provided avenues for environmental protection and management. These were predominantly the fundamental human rights and due process administrative procedures that the constitutions mandated.[22] Judicial review by courts in the developing world has proven in some instances to offer a valuable check on administrative actions that threaten the environment,[23] such as the Philippines Supreme Court decision in *Oposa*[24] and the Indian Supreme Court decision in *Mehta*.[25]

In the aftermath of the Cold War, much more rigorous and direct efforts were made to incorporate environmental provisions in the new constitutions. The new constitutional provisions fall into three categories: preambular statements, directive principles of state policy and basic environmental rights or duties for citizens.[26] There have been doubts about the status and effect of constitutional provisions, especially the preambles. The Nigerian constitution provides that 'the state shall protect and improve the environment and safeguard the water, air and land, forest and wildlife of Nigeria'.[27] Most experts consider such statements to be standards of attainment but not justiciable nor enforceable. However, constitutional principles incorporated into legislation can be made justiciable.[28]

While constitutional principles can serve to express long-term political commitment, they clearly cannot alone provide an adequate framework for effective

[20] N Schrijver, *Sovereignty Over Natural Resources: Balancing Rights and Duties* (Cambridge UP, 1997).

[21] See A Chua, 'The Privatization—Nationalization Cycle: The Link Between Markets and Ethnicity in Developing Countries' (1995) 95 *Columbia L Rev* 223, 232.

[22] See generally A Boyle and M Anderson (eds), *Human Rights Approaches to Environmental Protection. Jan Hancock, Environmental Human Rights* (Clarendon Press, 2003).

[23] J Widener, *Building the Rule of Law: Francis Nyalali and the Road to Judicial Independence in Africa* (WH Norton, 2001).

[24] *Minors Oposa v Secretary of the Department of Environment and Natural Resources* (1994) 33 ILM 173 (Sup Ct).

[25] *MC Mehta v Union of India* [1997] AIR SC 734.

[26] C Bruch, W Coker and C Van Arsdale, 'Constitutional Environmental Law: Giving Force to Fundamental Principles in Africa' (2001) 26 *Columbia Journal of Environmental Law* 131.

[27] Constitution of the Federal Republic of Nigeria 1999, s 20: see EE. Okon, 'The Environmental Perspective in the 1999 Nigerian Constitution' (2003) 5 *Environmental L Rev* 256.

[28] See the Nigerian Sup Ct judgment (in particular Uwaifo JSC's opinion) in *AG of Ondo State v AG of the Federation & ors* (1982) 13 NSCC.567.

environmental governance. Government legislation is also necessary. Like the legal regimes of many Western states, early post-colonial environmental legislation tended to be organised around particular economic activities, and the environmental goals were neither clearly visible nor appreciated by the populace. The legislation was also piecemeal, dealing with specific environmental media—eg, forestry, water, marine resources, and air quality.[29]

Recent decades have been marked by more comprehensive legislative effort constructed in the consciousness of environmental management and advancement. Most post-colonial states have enacted national environmental framework legislation, providing for land use planning, environmental impact assessment and pollution control. Thus, for example, Pakistan has the Environmental Protection Ordinance 1983, Egypt the Environmental Protection Law 1994, Uganda adopted the National Environment Act 1994 and Brazil has the National Environment Policy Law 1981.[30] These national environmental statutes tend to concentrate decision-making among central government authorities, and rely heavily on command-and-control regulation.[31] Thus, India has the Ministry of Environment and Forests, Chile has the National Commission for the Environment, and Nigeria established the Federal Environmental Protection Agency.

In recent years, references to 'sustainable development' have increasingly surfaced in these statutory regimes.[32] With the assistance of international institutions such as the World Conservation Union (IUCN) and the United Nations Environment Programme (UNEP), post-colonial states have been embellishing their environmental laws in the language of sustainability. Thus, Vietnam's Law on Environmental Protection 1993 declares its goal as 'serving the cause of sustainable development of the country',[33] and Zambia's Environmental Protection and Pollution Control 1990 gives the national Environment Council the duty to 'identify, promote and advise on projects which further or are likely to further . . . sustainable development'.[34]

This plethora of environmental laws in the developing world masks a variety of structural weaknesses in the capacity of their legal systems to promote sustainable development. Unlike examples from some developed nations, such as New Zealand's Resource Management Act 1990,[35] most post-colonial legislation hardly provide the policy tools to implement sustainability. Its more material concepts,

[29] BJ Richardson, 'Environmental Law in Postcolonial Societies: Straddling the Local—Global Institutional Spectrum' (2000) 11(1) *Colorado Journal of International Environmental Law & Policy* 1, 22.
[30] For these and more examples, see ED McCutcheon, 'Think Globally, (En)Act Locally: Promoting Effective National Environmental Regulatory Infrastructure in Developing Nations' (1998) 31 *Cornell International LJ* 395.
[31] See U Desai (ed), *Ecological Policy and Politics in Developing Countries* (SUNY Press, 1998).
[32] SO Subedi, 'Incorporation of the Principle of Sustainable Development into the Development Policies of the Asian Countries' (2002) 32 *Environmental Policy & Law L* 85; Hecht, above n 2.
[33] Preamble, available at www.vietnamlaws.com.
[34] S 6(2)(m), Cap 204 of the Laws of Zambia.
[35] See Bosselmann, ch 5, this vol.

such as the precautionary principle and environmental risk management or internalisation of environmental costs through environmental taxation, are barely acknowledged. Yet, for some post-colonial states, especially the rapidly industrialising and urbanising countries of East Asia, these should be highly relevant policy concerns. On the other hand, for some other nations, especially those in sub-Saharan Africa, different policy concerns, such as land tenure, the position of women and agricultural trade, tend to have a greater bearing on the state of environmental management. Environmental law in this region often fails to address these structural constraints to ecologically sound and socially just development. To the extent that the sustainable development discourse and its reforms fail to be tailored to the specific needs of different types of post-colonial societies, it will remain largely a framework devised by and for Western institutions and interests.

2. Good Governance and the Rule of Law

Part of the problem with current environmental law reforms is that they are not sufficiently supported by policies and administrative or other implementation institutions.[36] Hence, there has been growing talk about the need for 'capacity-building' in developing countries.[37] Mayda observes that new environmental legislation is of questionable value unless 'accompanied by a substantial increase in each nation's capability for policy development, institutional structures, administrative competence, and ability to train management, monitoring and enforcement personnel'.[38] Unfortunately, these elements are not always present. For instance, according to the Asian Development Bank's recent *Asian Environment Outlook*, 'the root cause of the poor state of the environment in the region was a failure of policy and of institutions'.[39]

Certainly, new or better environmental laws are not enough. Governments must also have an administrative system with the capacity and the motivation to implement and enforce regulations.[40] Legal reform must include mechanisms for public participation, access to information and judicial review. Unfortunately, there has been a tendency for governments to 'relegate the consideration of legal and institutional arrangements to artificially isolated chambers, destined for sequential consideration once the necessary policy document has been developed'.[41] Not

[36] On policy and institutional frameworks, see Dovers and Connor, ch 1, this vol.
[37] OJ Ebohon *et al*, 'Institutional Deficiencies and Capacity Building Constraints: The Dilemma for Environmentally Sustainable Development in Africa' (1997) 4(3) *International Journal of Sustainable Development & World Ecology* 204.
[38] J Mayda, 'Environmental Legislation in Developing Countries: Some Parameters and Constraints' (1985) 12 *Ecology Law Quarterly* 997, 998.
[39] Asian Development Bank (ADB), *Asian Environment Outlook* (ADB, 2002) p. xv.
[40] WL Andreen, 'Environmental Law and International Assistance: The Challenge of Strengthening Environmental Law in the Developing World' (2000) 25 *Columbia Journal of Environmental Law* 17, 26.
[41] *Ibid*, 28.

uncommonly, environmental legislation in post-colonial states has been a dead letter because of insufficient skilled personnel, lack of administrative and technical support, and meagre financial resources.[42] Concomitantly, there has been a tendency to ignore the potential contributions of non-governmental organisations (NGOs), local communities, and businesses and trade unions as a means of environmental governance.

Thus, many commentators argue that environmental law will hardly promote sustainable development unless anchored to wider reforms to promote good governance and the rule of law.[43] While this is part of the picture, the danger is that we can lose sight of the fundamental political and economic constraints to such reform. In other words, there can be confusion between the symptoms and causes of failed environmental governance. Law acquires its meaning and performs its social functions through processes of implementation and enforcement, without which it has little life in any given society. While some countries have made substantial progress in addressing these encumbrances, there has been a tendency for some states naïvely to import foreign precedents incompatible with local institutional and social conditions.[44] Thus, as Wang warns, 'law becomes effective by social forces and pressures interested in and working for its implementation. Without a proper institutional setting, the law will remain a fig-leaf, pretending action without changing social reality'.[45]

The failure of the 'Law and Development' movement of the 1960s and 1970s—a programme for legal technical assistance and reform to developing countries, as part of Western development aid programmes—shattered the naïve belief that if laws are reformed and legal institutions strengthened, nothing can restrain the 'rule of law's' triumph.[46] The law and development movement has re-emerged in a new guise recently, through the 'New Public Management' and 'Good Governance' prescriptions recited by the international development assistance community.[47] Thus, corruption, lack of transparency and accountability in administration, and cumbersome and outdated decision-making processes, are targeted as the principal villains to be reformed.

[42] Richardson, above n 29, 26–7.

[43] See B Boer, 'Institutionalising Ecologically Sustainable Development: The Roles of National, State, and Local Governments in Translating Grand Strategy into Action' (1995) 31 *Willamette L Rev* 307.

[44] P Legrand, 'The Impossibility of Legal Transplants' (1997) 4 *Maastricht Journal of European & Comparative Law* 111, 119.

[45] Y Wang, *Chinese Legal Reform: The Case of Foreign Investment Law* (Routledge, 2002)28.

[46] DM Trubek and M Galanter, 'Scholars in Self-Estrangement: Some Reflections on the Crisis in Law and Development' (1974) 4 *Wisconsin L Rev* 1062.

[47] J Demmers *et al* (eds), *Good Governance in the Era of Global Neoliberalism* (Routledge, 2004). For a trenchant Third World critique, see J Gathii, 'The Limits of the New International Rule of Law on Good Governance' in EK Quashigah and OC Okafor (eds), *Legitimate Governance in Africa* (Kluwer, 1999) 207; A Anghie, *et al* (eds), *The Third World and International Order: Law, Politics and Globalization* (Martinus Nijhoff, 2003).

Law reform can wrongly presuppose that certain societies do not have a 'rule of law' and are characterised by anarchy and disorder, and must therefore be restructured. But a society whose members are guided by, and comply with, traditional norms of behaviour rather than a state-supported edifice of codes and rules is clearly not one devoid of law. Many indigenous and local communities in post-colonial societies retain customary environmental management traditions that provide norms and sanctions that can complement government environmental law.[48] Successful law reform in so-called 'transitional countries' therefore at a minimum requires appropriate incentives and organisations that take account of the local culture and the past constraints that shaped the existing legal system.[49]

3. International Institutions and Co-operation

Many commentators believe that the prospects for effective environmental governance hinge not so much on endogenous conditions in post-colonial societies but on exogenous ones, especially the structure of the global economy and international environmental co-operation. During the 1960s and 1970s, theories of dependency and underdevelopment figured prominently in explanations of the environmental and economic dilemmas of the developing world. Like their colonial antecedents, post-colonial economies were seen as tied to the markets of the former colonial masters.[50] The privileged position of international capital under such conditions constrained the environmental policy options for post-colonial states. During the 1980s, the deteriorating terms of trade and the ballooning foreign debts of the Third World led critics to broaden the responsibility for the failure to achieve sustainable development to the general structure of the global economy.[51] Many commentators believe that 'the present economic system is grotesquely unsustainable and for all practical purposes it is impossible for a sustainable world to emerge and be maintained via the workings of an unconfined, undirected market system',[52] in which post-colonial states are besieged on all fronts. This global market order is underpinned by the Bretton Woods institutions of the World Bank, the International Monetary Fund and the General Agreement

[48] See D Bromley, *Environment and Economy: Property Rights and Public Policy* (Basil Blackwell, 1991).

[49] PH Brietzke, 'The Politics of Legal Reform' (2004) 3 *Washington University Global Studies L Rev* 1, 25.

[50] AG Frank, *Capitalism and Underdevelopment in Latin America* (Monthly Review Press, 1957); S Amir, *Unequal Development: An Essay on the Social Formations of Peripheral Capitalism* (Monthly Review Press, 1976).

[51] G Carvalho, 'Sustainable Development: Is it Achievable Within the Existing International Political Economy Context?' (2001) 9 *Sustainable Development* 61.

[52] R Douthwhite, 'Is it Possible to Build a Sustainable World?' in R Munck and D O'Hearn (eds), *Critical Development Theory: Contributions to a New Paradigm* (Zed Books, 1999); S Kuznet, 'Economic Growth and Income Inequality' (1955) 54(1) *American Economic Rev* 1. But see P Aghion *et al,* 'Inequality and Economic Growth: The Perspective of the New Growth Theories' (1999) 37: 4 *Journal of Economic Literature* 1615;

on Tariffs and Trade (now absorbed into the World Trade Organisation).[53] For instance, the lending policies of the World Bank and its sister multilateral development banks have been condemned for favouring large-scale, environmentally intrusive projects such as dams and highways which devastate community livelihoods.[54] The World Bank, however, has implemented a range of reforms to promote more attention to the environmental dimensions of projects it finances,[55] and it has created an independent Inspection Panel to monitor compliance with its environmental and human rights policies.[56] In recent years, the so-called anti-globalisation movement has focused attention on the need for international debt relief for the poorest countries and a shift away from 'free trade' to 'fair trade' policies to help economic producers in developing countries.[57]

A second set of concerns relates to the effectiveness of current mechanisms to promote international environmental co-operation. Certainly, few doubt that international environmental treaties, organisations and assistance are necessary to assist post-colonial societies to develop sustainability. Many lack the financial resources, technical expertise and management systems to devise and implement environmental laws and policies. However, international environmental institutions arguably do not adequately address these shortcomings, and do not provide a sufficient counterweight to the egregious effects of the global economy. For example the World Heritage Convention[58] and the Ramsar Wetlands Convention[59] problematically emphasise nature conservation rather than local sustainable use and management of resources that communities often crucially depend on.[60] The financial resources they make available, with the World Heritage fund and the Ramsar fund, are too meagre to make a difference.

Encouragingly, there are some international environmental institutions attentive to the need for local environmental governance and community empowerment.

[53] R Swedberg, 'The Doctrine of Economic Neutrality of the IMF and World Bank' (1986) 23 *J Peace Research* 377; H Wachtel, *The Money Mandarins: The Making of a Supranational Economic Order* (Pantheon, 1986).

[54] B Rich, *Mortgaging the Earth: The World Bank, Environmental Impoverishment and the Crisis of Development* (Beacon Press, 1995).

[55] R Wade, 'Greening the Bank: The Struggle Over the Environment, 1970–1995' in D Kapur, J Lewis and R Webb (eds), *The World Bank: Its First Half Century* (Brookings Institution Press, 1997) ii, 611.

[56] R Bisell, 'Current Development: Recent Practice of the Inspection Panel of the World Bank' (1997) 91 *A.JIL* 741.

[57] B Hoekman and M Kostecki, *The Political Economy of the World Trading System: The WTO and Beyond* (Oxford UP, 2001); R Nader (ed), *The Case Against Free Trade, GATT, NAFTA and the Globalization of Corporate Power* (Earth Island Press, 1993); J Stiglitz, *Globalization and Its Discontents* (Norton, 2002); JB Gelinas, *Freedom From Debt; The Reappropriation of Development through Financial Self-Reliance* (Zed Books, 1998).

[58] Convention concerning the Protection of the World Cultural and Natural Heritage 1972, 11 ILM 1358.

[59] Convention on Wetlands of International Importance 1971, 996 UNTS 245.

[60] See generally M Bowman and C Redgwell (eds), *International Law and the Conservation of Biological Diversity* (Kluwer, 1996).

For example, the 1992 Earth Summit's Agenda 21 plan contained extensive prescriptions for strengthening local government, NGOs and indigenous peoples.[61] The emerging principle of 'common but differentiated responsibility' in international environmental law expresses the idea that the West has greater responsibilities to address global environmental problems because of its larger contribution to such problems and its superior financial and technological resources to address them.[62] Some international treaties are also shifting their prescriptions away from inappropriate top-down bureaucratic and scientific solutions, in favour of local government, land tenure and other institutions often essential for sustainable, community livelihoods. Thus, the 1994 Desertification Convention sees the solutions to desertification of lands as including programmes to combat local poverty, give secure property rights to farmers and enhance local self-government.[63] Emerging international legal standards for indigenous peoples also emphasise land rights and self-government as the building blocks for sustainable natural resources management.[64]

Some treaties also include provisions for environmental technology exchange and financial assistance. For example, China owes its success in reducing ozone-depleting chemicals principally to the financial and technological support it received pursuant to the Montreal Protocol.[65] The Kyoto Protocol[66] will likely become more influential, mainly due to its dedicated funds[67] to help developing countries abate greenhouse gas emissions through technology transfer for energy efficiency and by land use and waste management changes.[68] The Kyoto Protocol's Clean Development Mechanism can also support investments in non-fossil energy projects in developing countries.[69] Other important financial mechanisms include the Global Environment Facility, which disburses grants for high profile environmental projects,[70] and the debt-for-nature swaps, which reduce a government's

[61] UN Conference on Environment and Development (UNCED), *Agenda 21: Programme of Action for Sustainable Development* (UNCED, 1992) chs 26–28.

[62] Halvorssen, above n 1; see also Ellis and Wood, this vol.

[63] Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification 1994, 33 ILM 1328.

[64] SJ Anaya, 'Divergent Discourses about International Law, Indigenous Peoples, and Rights Over Lands and Natural Resources: Toward a Realist Trend' (2005) 16(2) *Colorado Journal of International Environmental Law & Policy* 237.

[65] Montreal Protocol on Substances that Deplete the Ozone Layer 1987, 26 ILM 1550.

[66] Kyoto Protocol to the Framework Convention on Climate Change 1997, 37 ILM 22.

[67] Namely, the Special Climate Change Fund, Least Developed Countries Fund and Kyoto Protocol Adaptation Fund.

[68] See European Commission (EC), *Summary of Key Elements of the Bonn Agreement on Climate Change* (Directorate-General XI—Environment, 23 July 2001).

[69] Kyoto Protocol, above n 66, Art 12(3)(b). The CDM allows industrial countries to invest in projects in non-Annex I parties and to use the 'certified emissions reductions' that derive from the projects towards compliance with their Protocol commitments.

[70] Instrument for the Establishment of the Restructured Global Environment Facility 1994, 33 ILM 1273.