# Netting the Global Forest:

# Attempts at Influence

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CETSAF, CIAS, COINACAPA, EM-BRAPA, FECOFUN, FLASCO, FOR-DA, ICRAF, IUCN, WCS, WHIN-CONET, WOCAN… We seem surrounded by ever more such acronyms in today's world, but these are only twelve of the 254 organisations in 50 countries that collaborate with CIFOR, the Centre for International Forestry Research.

They include government agencies, non-government agencies and hybrids of them; universities and research centres; small concerns endemic to their countries and large ones spread world-wide. Shadowing them all stand the World Bank, the European Union, sixteen national governments and 58 national and international organisations that provide CIFOR's funds.[1] And CIFOR is only one of the many international organisations concerned with the world's forests. This proliferation has occurred over the last twenty years, but it is their global reach, and the intricacy of the networks that they have created, that marks them as a phenomenon of globalisation and a new tier in the history of managing forests. Their evolution from 1891 to the present is the subject of this paper.

Managing forests has an ancient history from being in the hands of villages to the courts of kings, and to the forestry bureaucracies of nations, empires and their colonies.[2] Deforestation has a parallel history whose progress, poorly controlled in many countries, is part of the global forest crisis.[3] Allied with it are the loss of forest rights by local people, the degradation of the forest structure and the loss of biodiversity. The new organisations struggle to avert the crisis, influence the processes or ameliorate the impacts. I depict them in this paper as attempting to cast a *net of influence* over other processes of globalisation and the sovereignty of national governments. Unlike all previous forms of forest management, they have no legislative power, yet they add a set of institutions, ideas and cultural approaches. The evolution of the present complexity is described in this paper as evolving in stages. The turning points between them were the Second World War, the 1972 UN Conference on the Human Environment, and the 1992 UN 'Earth Summit' Conference on Environment and Development. What emerges in conclusion is a dynamic picture of changes to organisations

[1] See appendix for list of acronyms.

[2] The environmental history of political power in the control of forests and water is brought out strongly by J. Radkau, *Nature and Power: A Global History of the Environment*, (Trans. Thomas Dunlap), German Historical Institute, Cambridge University Press, Washington DC and Cambridge 2008.

[3] M. Williams, *Deforesting the Earth: From Prehistory to Global Crisis*, University of Chicago Press, Chicago 2003.

and their inter-relationships as various attempts are made to find an acceptable future for the world's forests in the era of globalisation.

## Globalisation

'Globalisation' in today's media describes the newness of everything with a global reach, from car manufacturing to the Internet; from pop culture to the 'anti-globalization' demonstrations outside World Economic Forum meetings. As Denis Cosgrove puts it,

> Globalization is a driving idea of our times. Powered by technological innovation, by capital's restless search for investment opportunities, by geopolitical ambition, by ideological or religious fervour, even by tourist desire and adventure, globalization is a hydra of modernity.[4]

It is also the driving concern of this journal and many analysts. For example, the apparent ubiquity of globalisation is unravelled by Colin Hay, Antoinette Burton and Geoff Eley, among others who are concerned with the contemporary period since the 1970s.[5] Hay shows that although many analysts depict the *convergence* of national policies towards the sort of deregulated, neoliberal capitalism promoted by the US, the World Bank and some Western countries, others emphasise the *differences* in national responses and the creation of *regional* institutions like the European Union. Taking the question of scale further, Burton stresses the *diversity* of effects at the local level and the agency of non-state actors and marginalized peoples, seeing the local and global levels as 'mutually if unevenly constituted'.[6] Eley stresses changes to the internal organisation of countries, the creation of new forms of trans-national organisations and the prolif-

[4] D. Cosgrove, *Apollo's Eye: A Cartographic Genealogy of the Earth in Western Imagination*, John Hopkins University Press, Baltimore and London 2001, p. ix.

[5] C. Hay, "Contemporary Capitalism, Globalization, Regionalization and the Persistence of National Variation", in *Review of International Studies*, 26, 2000, pp. 509-531.

[6] A. Burton, "Not Even Remotely Global? Method and Scale in World History", in *History Workshop Journal*, 64, 2007, pp. 323-328.

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eration of non-governmental organisations, the 'NGOs'.[7]

The proliferation occurred across levels and sectors. At the international level, the number of intergovernmental agencies (IGOs) roughly doubled from 150 in 1960 to over 300 in 1980, and then rapidly swelled to some 1800 in the 1990s, due largely to the increasing complexity of the UN system of agencies, the integration of European countries, the formation of agencies to link former parts of the Soviet Union and others to link African countries.[8] At the national level, the number of agencies increased in a surprising way since the 1980s. Instead of a reduction of the role of the state in favour of market forces as the neoliberal agenda intended, states created so many more regulatory agencies across most sectors that some analysts even describe the present stage as one of 'regulatory capitalism'.[9] Levi-Faur and Jacint Jordana quantified this and their data shows that the increasing number of agencies in the environment sector followed the overall trend (Figure 1).

The increase in the number, size and influence of NGOs is a diverse social and political phenomenon of our times that spans most sectors and scales from local to global. At the global level, the number of international NGOs in all sectors increased 'from about 200 active organisations in 1900 to about 800 in 1930, to over 2000 in 1960 and nearly 4,000 in 1980'.[10] Some of the international NGOs became large wealthy organisations. The World Wildlife Fund is the largest in the environmental arena with an income of £44 million (€49 million), five million supporters and operations in 90 countries.[11] At the

[7] G. Eley, "Historicizing the Global, Politicizing Capital: Giving the Present a Name", in *History Workshop Journal*, 63, 2007, pp. 154-188.

[8] *Yearbook of International Organizations*, 1985-86, 1998-99, 'special types' not included.

[9] D. Levi-Faur, "The Global Diffusion of Regulatory Capitalism", in *Annals of the American Academy of Political and Social Science*, 2005, 598, pp. 52-60. J. Braithwaite, *Regulatory Capitalism: How It Works, Ideas For making It Work Better*, Edward Elgar, Cheltenham 2008.

[10] J. Boli, G.M. Thomas, "INGOs and the Organization of World Culture", in *Constructing World Culture: International Nongovernmental Organizations since 1875*, id. (eds), Stanford University Press, Stanford 1999, p.14.

[11] WWF-UK, *Report and Financial Statements*, Godalming 30 June 2008.

local level, the number is legion. For example, there are at least 11,200 Community Forest User Groups in Nepal.[12] The place of NGOs in world politics was formally acknowledged by the UN's Economic and Social Council from 1946 when it granted 41 organisations consultative status. Their presence increased to over 700 by 1992 and then rapidly swelled to over 3000 by 2009.[13] The category showing the most rapid increase was concerned with ecosystems (i.e. including forests). Its trend started in the late 1940s, accelerated in the mid-1970s and accelerated again in the late 1980s as new organisations were formed, apparently in preparation for the 'Earth Summit' Conference on Environment and Development, held in Rio de Janeiro in 1992 where some 2400 NGO representatives attended a parallel forum.[14]

**Fugure 1. Numbers of agencies, 1960-2000+**
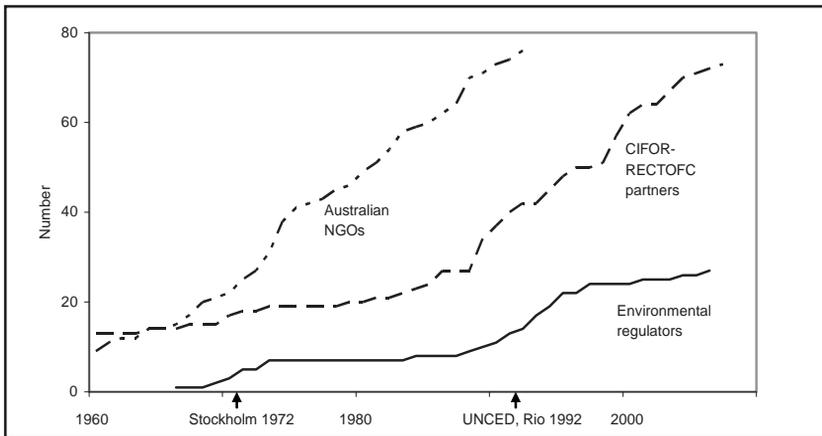


Sources: Australian NGOs – data collected by author. CIFOR-RECTOFC partners and collaborators – agency annual reports. Environmental regulators – data collected by D. Levi-Faur and J. Jordana.

[12] This is the number of groups affiliated with the Federation of Community Forest User Groups in Nepal (FECOFUN), http://www.fecofun.org/ cited 28 April 2009.

[13] UN Department of Economic and Social Affairs, http://www.un.org/esa/coordination/ngo/ cited 8 May 2009.

[14] D.J. Frank, A. Hironaka, J.W. Meyer, E. Schofer, N.B. Tuma, "The Rationalization and Organization of Nature in World Culture", in *Constructing World Culture* cit., pp. 81-99.

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An indication of the trends in the number of NGOs specifically concerned with forests can be seen from two cases shown in Figure 1. The first case is taken from Australia, where a vigorous environmental movement arose from an earlier conservation history, in a synchronous manner to that in the USA. The dates of formation of 76 NGOs were traced up to 1993 and show an increasing trend dating from the late 1960s.[15] The second case is taken from the lists of organisations that collaborate with two organisations based in Southeast Asia: the Centre for International Forestry Research, CIFOR, mentioned at the start of this paper, and the Regional Community Forestry Training Centre for Asia and the Pacific, RECOFTC.[16] The dates of formation of 73 of their collaborating NGOs were traced up to 2008 and show marked increase in the trend from 1990. The roughly 20-year time lag between the rise of interest in Australia, a developed industrial country, and the rise in Southeast Asia is an example of diffusion and reflects the increasing concern over the fate of tropical rainforests in both developed and developing countries.[17]

### The forest context

Controlling forest use is a necessary social function for a resource with multiple uses, and it provided rulers with a source and an expression of political power from ancient times.[18]  However, control

[15] J. Dargavel, *Fashioning Australia's Forests*, Oxford University Press, Melbourne 1995, pp. 144-145.

[16] Centre for International Forestry Research, *CIFOR Annual Report 2007: Pathways to Impact,* http://www.cifor.ciag.org/ cited 30 April 2009. Regional Community Forestry Training Centre, http://recoftc.org/site/ cited 30 April 2009. The sample is biased towards larger and international NGOs because the date of formation of many smaller NGOs could not be determined readily.

[17] Several NGOs specifically concerned with these forests were started in Europe and North America from the mid-1980s. For examples: Rainforest Action Network 1985, Rainforest Alliance 1986, Rainforest Foundation 1989, Rainforest Concern 1993, Princes Rainforest Project 2007.

[18] Radkau, *Nature and Power: A Global History of the Environment* cit. p. 86, considers that 'the long growth period of trees provided the standing argument for lordship'.

of such a widely dispersed resource could rarely, if ever, be entirely centralised. The history of forest control and management is thus a history of *attempts*, as much as of achievements in an ever-changing world. During the nineteenth and early twentieth centuries, national and colonial forest bureaucracies evolved into centralised, hierarchical, often quasi-military organisations that controlled the state domains, but exercised limited control over village and individual forests. The forest bureaucracies held a particularly uniform, scientific and technocratic ethos based primarily on opposition to deforestation and the assertion of 'systematic' planning to sustain the output particularly of timber in the long term from 'fully regulated' forests. Amidst the clamour to use the forests' resources, they could rarely fully implement their vision in the state's own forests, let alone in privately-owned or communal forests, and in much of the world they failed to control rampant exploitation. Moreover, they came under sustained criticism from the 1970s for failing to consider environmental consequences adequately or meet the rising demands for citizens to participate in management decisions. Like other government agencies, they faced the 'new public management' reforms of the neoliberal agenda that called for downsizing, contracting out and 'corporatising' their structures.[19] The contradiction between reducing the state and increasing environmental protection led to restructuring of the long-stable national forestry agencies of many developed countries and increasing the regulation of forest practices on environmental grounds.

It was the scale of deforestation in developing countries that raised alarms about the resource and habitat depletion with consequent threats to timber supplies in developed countries and the survival of some species. The environmental movement championed the preservation of biodiversity as an ethical issue that transcended both human needs and national sovereignty. By the 1980s, it had pushed the control of forests firmly on to the global political agenda.

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[19] E.W. Welch, W. Wong, "Effects of Global Pressures on Public Bureaucracy: Modelling a New Theoretical Framework", in *Administration and Society,* 33, 4, 2001, pp. 371-402.

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This *added* the new level that is the subject of this paper, but did not replace the village, local and national levels of control.

## Internationalising forestry

The roots of today's globalisation of forestry can be traced to the networks of scientific societies, governments and individuals that spread the ideas of forest conservation around the world from the seventeenth century.[20] However, it was not until the twentieth century that formal institutional roots were set down for international forestry.

### International Union of Forest Research Organisations (IUFRO)

The International Union of Forest Experiment Stations was the first international organisation solely devoted to forestry when it was founded in 1891.[21] By 1900 its members came only from ten European countries, but it slowly expanded and in 1929 changed its name to the International Union of Forest Research Organisations (IUFRO). In 1930 its members came from thirty-two countries, of which only seven (Canada, India, Indonesia, Japan, Mexico, South Africa and USA) were outside Europe. After the Second World War, its membership increased from post-colonial and other countries so that 53 countries had members by 1960 and 110 by 1990. It operates as a voluntary network to exchange scientific information. It now has 15,000 individual researchers organised in disciplinary divisions and units, including one concerned with forest and woodland history.[22]

[20] R.H. Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origin of Environmentalism, 1600-1860*, Cambridge University Press, Cambridge 1995.

[21] International Union of Forest Research Organisations, *100 Years of IUFRO, 1892-1992*, IUFRO, Vienna 1992. It was the second international scientific body. The World Meteorological Organization founded in 1873 was the first.

[22] IUFRO Unit 6.07.00, Forest and Woodland History, is coordinated by Mauro Agnoletti. It has sub-groups for Tropical Forest History, Social and Economic History, Forest Culture and Cultural Forestry, Ecological History, and History of Hunting. IUFRO is supported by a staff of 15 people based in Vienna.

*British Empire and Commonwealth Forestry Conferences*

The first example of setting up an international network that attempted to influence forest policy occurred in 1920 when Britain brought the heads of its forest services from across its empire to London for its first forestry conference. They adopted a 'creed' of having forestry legislation for each part of the Empire, reserving state forests and training professional foresters to manage them on sustained yield principles.[23] The Indian forest service provided the model; the task was to extend it to Britain's many colonies and to the self-governing dominions of Australia, Canada, New Zealand and South Africa. Each delegate lodged a standard report on the extent and condition of the forest resources in their country, which was then aggregated to evaluate the Empire's forests as a whole. It was an essential step, as James Scott puts it, of 'seeing like a state' or in this case, an empire – and the precursor of a global perspective.[24] The Imperial Forestry Institute, established in Oxford in 1924, maintained this perspective by collating and disseminating information across the Empire, and by providing post-graduate training. The Empire Forestry Association and its *Empire Forestry Review,* published from 1922 reinforced it. Further conferences made grand tours around their host countries and held sessions in provincial, state and national capitals.[25] Delegates made recommendations, urged politicians to follow them, provided peer reviews, and exchanged scientific and professional information. However, diversity persisted as various parts of the British Empire took their own paths as they tried to advance or avoid the creed's principles in their own ecological, political and economic circumstances. Peter Vandergeest and Nancy Lee Peluso detail the variety of adaptations for parts

[23] S.R. Rajan*, Modernizing Nature: Forestry and Imperial Eco-Development 1800-1950*, Oxford University Press, Oxford 2006. The Forestry Conferences formed part of its struggle to restore its economic strength in the face of increasing US power after the First World War. 'Creed' is Rajan's term to cover the key principles adopted by the Conferences in its resolutions.

[24] J.C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*, Yale University Press, New Haven 1998.

[25] Canada 1923, Australia and New Zealand 1928, South Africa 1935.

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of Southeast Asia, and Michael Roche and John Dargavel demonstrate this for forestry education even in New Zealand and Australia, which might have been expected to be the most conforming of countries.[26]

Britain's imperial connections were not disbanded after the Second World War, when 'Empire' institutions were simply re-badged as 'Commonwealth' ones. Although imperial oversight was redundant, the conferences were continued, enlarged to give a greater scientific emphasis, and convened in new locations.[27]

### World Forestry Congress

The first example of setting up a *global* network of influence occurred in 1926 when the first world-wide conference on forestry was convened in Rome. The creation of the League of Nations in 1919 provided the context in which taking a global view of forestry could be imagined. The World Forestry Congress originated from the International Institute of Agriculture founded in Italy at the urging of an eccentric American, David Lubin, and with the imprimatur of Italy's King Victor Emmanuel III. The Institute embodied a progressive ideal that international cooperation could improve the lot of farmers, and incidentally that:

> …the management of forestry domains and water courses in one country seriously affects the welfare of people in adjoining states. International understandings would rebound to the advantage of all concerned.[28]

[26] P. Vandergeest, N. Lee Peluso, "Empires of Forestry: Professional and State Power in Southeast Asia, Part I", in *Environment and History*, 12, 1, 2006, pp. 31-64. M.M. Roche, J. Dargavel "Imperial Ethos, Dominions Reality", in *Environment and History* 14, 4, 2008, pp. 523-543.

[27] The *Empire Forestry Review* became the *Commonwealth Forestry Review* in 1962 and was re-launched in 1999 as the *International Forestry Review*. Conferences were held in India 1968, Trinidad and Tobago 1980, Malaysia 1993, Zimbabwe 1997, Sri Lanka 2005.

[28] A. Hobson, *The International Institute of Agriculture: An Historical and Critical Analysis of its Organization, Activities and Politics*, vol. 2, University of California Press, Berkley 1931, Johnson Reprint, Boulder 1966, p. 36.

Noble ideals did not translate into effective administration. Confusion and conflicts flourished between the Congress's General Assembly of the 54 member states that financed it, its Permanent Committee, its Secretary-General, and various Commissions charged to improve it. Although most delegates came from Europe and North America, some African, Asian, Middle Eastern and South American countries were represented. Unlike the IUFRO and British Empire Forestry Conferences of the time, the Congress included specialist and NGO delegates, although they received less recognition than the official ones.[29] The resolution for a Bureau within the Institute to collect forestry statistics for the whole world failed under the weight of 'personal, political and diplomatic considerations'.[30]

The first instance of co-ordination between international organisations occurred in 1936 when the second World Forestry Congress in Hungary was scheduled immediately after the ninth IUFRO Congress in order to enable some delegates to attend both meetings.[31] The second World Forestry Congress led to two permanent organisations be-

[29] International Institute of Agriculture, *Proceedings of the First International Forestry Congress*, Rome 1926, in *National Archives of Australia*, AA1975/198, 6, pp. 85-97. The Congress was held from 29 April to 5 May 1926. 700 official and other delegates attended. The NGOs included Men of the Trees, Royal Scottish Arboricultural Society and American Tree Association. The USSR was the only major forest country not to attend.

[30] Over 200 papers "of varying merit but many of them of considerable excellence" were presented, and resolutions of an "extremely general nature" were passed. The statistics resolution followed the publication of a compendium on forest resources R. Zon, W.I.N. Sparhawk, *Forest Resources of the World*, 2 vols, McGraw Hill, New York 1923. J.D. Guthrie, "The World Forestry Congress", in *Science*, 64, 1662, 1926, pp. 457-458. Hobson, *The International Institute of Agriculture* cit., p. 108. Secretary, Forestry Commission, London to High Commissioner for Australia, 19 August 1927, and C.E. Lane Poole, Inspector-General of Forests, Australia to R. L. Robinson, Forestry Commission, London, 4 April 1928, in *National Archives of Australia*, AA1975/198, 6, 2-4.

[31] The second World Congress was also poorly organised by the International Agricultural Institute. It resolved to form a Permanent Committee of national representatives to plan any further Congresses. W.H. Guilebaud, "Recent Forestry Congresses in Hungary", in *Empire Forestry Journal*, 15, 2, 1937, pp. 221-227. The political considerations were the drastic affects of the economic depression on the

ing set up. The Centre International de Sylviculture (or International Forestry Centre) was set up in Berlin in May 1939 and the Comité International du Bois was set up in Brussels about the same time. With the Second World War looming, the English-speaking countries took no part in the Centre International de Sylviculture. However, it managed to assemble a large library, most of which survived the war.[32]

It was only after the Second World War that another Congress could be held and by then an organisation with a firmer global reach was needed.

### Organising forestry in the post-colonial world

The creation of the United Nations in 1945, the decolonisation of the European empires, a belief in progress through industrialisation and the rise of nationally based aid organisations started the proliferation of organisations.

*Food and Agriculture Organisation*

The Food and Agriculture Organisation (FAO) of the UN was the leading international forestry organisation from 1945 until the 1990s when other agencies, described later, also took leading roles.[33]

world's timber industry and the increasing influence of Nazism in Germany and Italy. E. Glessinger, "Forest Products in a World Economy", in *American Economic Review*, 32, 2, 1942, pp. 120-129 describes the efforts of the Comité International du Bois, established in Vienna in 1932 on the initiative of the League of Nations, to develop an international statistical base for the wood products industries and create an international industry stabilisation scheme.

[32] Details of the Centre International de Sylviculture and its remarkable library are given by E. Johann, "The Collection of Historical Forestry Books in FAO", http://lubinlib.typepad.com/index/files/cis.doc.

[33] FAO, "The Dawn of FAO's Work in Forestry and Early Achievements: Interview with René Fontaine", in *Unasylva*, 46, 182, 1995. FAO's Forestry Division took over the assets of the old International Institute of Agriculture, including those of the Centre International de Sylviculture and the Comité International du Bois when it moved its headquarters to Rome in 1951 and, with a nod to the past, named its library, the "Lubin Library".  It also, but more effectively, collected and published the *Yearbook of Forest Products Statistics* from 1947.

Its Forestry Division was governed by a hierarchy of international and professional relationships. At the top was FAO's conference of member states that set its general policy every two years, and a Council that governed it between conferences. The Forestry Division was advised by a statutory Committee on Forestry, made up of senior officials and foresters nominated by their governments, and the general direction of world forestry was debated at World Forestry Congresses that were held every six years.

Although FAO adopted the principles of conserving all of the world's useful and protective forests, its first concern was finding timber for the reconstruction of war-ravaged Europe. For this it had to co-operate with the UN's Economic Commission for Europe, organise a permanent Timber Sub-Committee for Europe and create a European Commission for Forestry and Forest Products.[34] It extended its regional layer by starting Commissions for Asia and the Pacific in 1950, Latin America in 1952 and the Near East in 1955. It adopted its 'Principles of Forest Policy' – markedly similar to the British Empire's 'forestry creed' – which stated that dedicated forests should be preserved and managed for perpetual benefit under specific legislation by a professionally led forest service.[35] The statement was not legally binding, but was an attempt to influence national policies through FAO's widening net of influence.

### Decolonisation and continuity

Politically, the 'winds of change' blew strongly from the end of the Second World War through the 1960s as India, the Philippines and Southeast Asian and African colonies, peacefully or bloodily, gained their independence, as did many smaller Caribbean and other colonies in the 1970s. The transfer of political power from empires to

[34] FAO, "The Third Session of the FAO Conference", *Unasylva*, 1, 3, 1947. Note that the page numbers are not cited for references to *Unasylva* in this paper which are taken from the on-line version at www.fao.org/forestry/unasylva/en/

[35] The statement of principles was adopted in 1951 and reported in *Unasylva*, 6, 1, 1952.

independent nations did little to alter the structure of colonial forestry. Having the power to control their forest resources was just as important to the new leaderships as it ever had been to their imperial masters: they kept the apparatus of state forests and forestry departments. Finding professional staff to run them was more difficult. Some countries were well placed as foresters had been trained in India since 1906 and in the Philippines since 1910. Most countries retained or recruited expatriate staff and sent promising students to the existing forestry schools of Europe and North America.[36] It was not enough.[37] Although China and Brazil started schools, the situation remained critical, particularly in Africa, until other UN agencies provided funds to build more schools.[38] Although only about 30 countries had forestry schools in the 1950s, over 60 more were training their own foresters by 1986. The established universities in core countries provided curriculum advice, professors and lecturers to start these new schools, which continued to teach forestry as a science and an ethos of control.

Vandergeest and Peluso show how FAO's leading role reduced diversity and promoted convergence in Southeast Asia. They argue that:

> By promoting a standard model of forestry-for-development, encouraging exclusionary forestry laws, strengthening the bureaucracies of professional foresters, and institutionalising the very concept of state forestry, the FAO became an empire in its own right.[39]

While FAO offered more technical assistance and promoted its

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[36] FAO published a directory to help them find places: FAO, "Directory of Forestry Schools", in *Forestry and Forest Products Studies*, n. 10, FAO, Rome 1953.

[37] Division of Forestry and Forest Products, "A Survey of Education and Employment in Forestry", in *Unasylva*, 2, 5, 1948.

[38] A. Lafond, "Forestry Education and Training in Africa", in *Unasylva*, 24, 1, 1970.

[39] P. Vandergeest, N. Lee Peluso "Empires of Forestry: Professional and State Power in Southeast Asia, Part II", in *Environment and History*, 12, 4, 2006, pp. 359-393.

forestry principles, most developing countries wanted industrialisation regardless of the long-term sustainability of the forests.[40] Moreover, trapped by debt for their national development projects and prodded by the structural adjustments required by the International Monetary Fund, many countries had little choice but to open up their natural resources for export markets. Although FAO started to co-operate with some British and US bilateral programs, most of the bilateral programs operated independently with their own material and strategic emphases which complicated the administration of forestry.[41] Diversity persisted. If FAO was 'an empire' of forestry seeking convergence, it was relatively powerless against the global economy, national interests and, increasingly, the environmental movement.

### The environmental era

The era of widespread environmental concern is commonly credited as starting with the publication of Rachel Carson's *Silent Spring* in 1962, and being set in the global arena by the UN Conference on the Human Environment, held in Stockholm in 1972, and by the UN Environment Program (UNEP) started soon afterwards. The fate of the forests was a major strand in the overall concern. Part was fear that the world's forest *resources* were not being *conserved* sufficiently – the foundation concern of forest management; and part was the belief that the forest *ecosystems* should be *preserved* for their own sake – the foundation concern of environmentalism. At root were the burgeoning demands placed on the forests. Not only did the world population increase by almost forty per cent in the 1970s and 1980s, but the developed world consumed more per person, particularly of paper.[42] Companies could afford to push the frontier of exploitation into previously untapped tropical and mountain forests. The broad

[40] M. Leloup, "Ten Years of Forestry in FAO", in *Unasylva*, 11, 2, 1957.

[41] FAO, *Unasylva*, 4, 4, 1950. P. Hjertholm, H. White, "Survey of Foreign Aid: History, Trends and Allocation", Discussion paper 00-04, Department of Economics, University of Copenhagen, Copenhagen 2000.

[42] From 3.7 billion in 1970 to 5.2 billion in 1989.

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scale logging required to increase exports, largely of logs and pulp-wood to Europe and Japan, scarred the forests and attracted savage environmental critiques from the NGOs of the emerging environmental movement. The organisational changes that followed at the national level varied in different parts of the world.

### Developed countries

In the developed countries around the Pacific, with well-organised NGOs like the Australian Conservation Foundation or the Sierra Club in the USA, environmental critiques of the way the forests were being managed escalated into protests and long-running political controversies. The forest services ameliorated the impacts of logging, but could not satisfy the environmental demands. Their ethos of conservation was incompatible with the new ethos of preservation, and their tradition of sole professional control was at odds with demands for public participation in decisions. Governments took, to varying extents, two courses of action.  One was to transfer some of their public forests to national parks and conservation reserves. The extreme case was New Zealand, which put all its public native forests into conservation reserves and privatised its extensive state plantations, thus making its forest service redundant.[43] The other course was to restructure the administration of public land by amalgamating forestry departments with national parks or other environmental departments in the belief that integrated agencies would be less liable to 'capture' by client industries than single-purpose agencies.[44] Such attempts to solve the resource and environmental contradictions by organisational change were not necessarily stable

[43] C. O'Loughlin, " Institutional Restructuring, Reforms and Other Changes with the New Zealand Forestry Sector Since 1986", in *Re-inventing Forestry Agencies: Experiences of Institutional Restructuring in Asia and the Pacific*, P. Durst, C. Brown, J. Broadhead, R. Suzuki, R. Leslie, A. Inoguchi (eds), Asia-Pacific Forestry Commission, FAO-RAP publication 2008/05, Bangkok 2008, pp.103-132.
[44] For example, the Australian State of Victoria broke the culture of its long-established Forests Commission by amalgamating all its public land management

and required the addition of new regulators, thus instancing the regulatory capitalism thesis mentioned earlier.[45]

### Tropical rainforests

It was in the rainforests of the tropical world, with their wealth of species, dependant peoples and fragility to disturbance that the impacts of large-scale logging for export were greatest. The forest services were unable to restrain the political allocation of concessions to logging companies, or enforce adequate standards, even in countries like the Philippines or Malaysia that had a long history of forestry. Moreover, the belief in centrally planned state forests inherited from colonial forestry and advocated by FAO was quite unsuited to countries like Papua New Guinea or the Solomons Islands where the land is held in complex systems of customary ownership. As the social impacts of large-scale logging on forest dwelling people and village communities became increasingly apparent, NGOs added social critiques to their environmental ones. The established form of state forestry was also challenged by questions about energy and agriculture. Both were perennial questions of local use and political power that had faced forestry from ancient times but which became more difficult to resolve as increasing populations put more pressure on the forests.

### Highly populated and arid countries

In parts of highly populated countries like India, the state forests could not be defended against rural people desperate for fuel wood. In the drier parts of Africa, the situation was exacerbated in the mid-1970s by drought coinciding with sharp increases in the price of

agencies into a single Department of Conservation, Forests and Lands in 1983. F. Fitzgerald, "Integrated Organisations of Land Management", in *Prospects for Australian Hardwood Forests*, J. Dargavel, G. Sheldon (eds), Centre for Resource and Environmental Studies, Australian National University, Canberra 1987, pp. 253-262.

[45] For example, Western Australia amalgamated its forests, national parks and wildlife agencies in 1985, only to split them into a forest trading enterprise,

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kerosene (also known as paraffin oil) used for cooking. In the tropics, swidden agriculture – denigrated as 'slash and burn' – and many forms of forest grazing and local use did not fit the state forest model, while migration into the forests, clearing for agriculture or for plantation crops like oil palm and many other causes led to intractable problems of deforestation, forest degradation and consequent loss to the people dependant on the forests. New forms of forestry emerged that were labelled as social forestry, farm forestry, community forestry, joint forest management or rural development forestry.[46] Many occurred outside the boundaries of the reserved state forests and provided various levels of local participation or control. NGO or foreign aid agencies often stimulated or funded these new forms. In doing so, they brought perspectives of sociology, anthropology and rural development so that the ethos of professional, forest science-based control had to give way to participatory management and a wider range of disciplines.

### Large industrial plantations

In contrast to these small-scale, community-based forms, large-scale industrial plantations were established in both developed and developing countries at an increasing rate from the 1970s, driven by the demands of the pulp and paper industry, and in Brazil also by the steel industry. Foreign companies bought up domestic companies and their plantations as a base for international expansion. At the end of the 1990s some global financial capital also started to invest

a conservation management agency and a separate regulatory body in 2000. F. Scarff, S. Duus, "Forests of Southwestern Australia: Winds of Change", in *Search of Excellence: Exemplary Forest Management in Asia and the Pacific*, P.B. Durst, C. Brown, H.D. Taciao, M. Ishikawa (eds), FAO Regional Office for Asia and the Pacific, Bangkok 2005. Similarly, Tasmania (1985) and British Columbia (1996) set up Forest Practices Boards as independent regulators.

[46] J.E.M. Arnold, R. Persson, "Reorienting Forestry Development Strategies in the 1970s towards 'Forests for People'", in *International Forestry Review*, 11, 1, 2009, pp. 111-118. M. Hobley, *Participatory Forestry: the Process of Change in India and Nepal*, Overseas Development Institute, London 1996.

in the forest sector in order to diversify the type of assets it held.[47] Although plantations had long been a part of forestry practice it was the extent of the new plantations mostly of exotic species, the high level of science and technology, the intensity with which they were managed, and the investment of corporate capital that marked them out as the most globalised part of the forest sector.

### Globalising forestry up to the Earth Summit in 1992

Deforestation was the central issue that put forestry on to the global political agenda, but it was not until the 1980s that its extent was fully realised.[48] Countering it gained wide international support both to conserve the world's wood resources and to preserve the biological richness of the forest ecosystems, or 'biodiversity' as it came to be called. The environmental movement, largely, but not entirely based in developed countries asserted that it had a legitimate interest in preserving biodiversity, especially of rare and endangered species, that should over-ride human concerns and national sovereignty. At the same time social justice concerns over the rights of indigenous and local people in the forests entered the policy arena. Although there were significant differences between the conservation, preservation and social justice agendas, they shared their opposition to the deforestation and degradation of the tropical forests. It was the conjunction of these interests that led to international policies and the involvement

[47] For example, Hancock Timber Resource Group, a subsidiary of the Canadian/US-based insurance and financial services group, MFC Global Investment Management, acquired large areas of forests and plantations in Australia, Brazil, Canada, New Zealand and the United States.

[48] Judging from the articles appearing in FAO's journal *Unasylva*, deforestation was not an important topic before the 1980s. The loss of forest to grassland in the Arid zone of Africa was discussed by A. Marie, A. Aubreville, "The Disappearance of the Tropical Forests of Africa", in *Unasylva*, 1, 1, 1947. H.L. Shantz "An Estimate of the Shrinkage of Africa's Tropical Forests", in *Unasylva*, 2, 2, 1948. K.H. Oedekoven, "Saving Our Vanishing Forests", in *Unasylva*, 16, 2, n. 65, 1962. M. Williams, *Deforesting the Earth: From Prehistory to Global Crisis*, University of Chicago Press, Chicago 2003, pp. 446-457, analyses the various estimates of the rate of deforestation that were made from 1976-1990.

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of numerous IGOs and NGOs concerned with forests.[49]

*Tropical Forestry Action Plan*

FAO responded to the rising interest by launching its Tropical Forestry Action Plan in 1985. David Humphreys has analysed the history of the Plan as an evolving process with several strands that engaged a number of IGOs, in addition to FAO, and involved NGOs in various ways.[50] There was a strand of science that drew environmental experts from UNEP and others from the United Nations Educational, Scientific and Cultural Organisation to work with FAO's forestry experts. Another strand was the Committee on Forest Development in the Tropics that was formed in FAO with members from fifty governments and five other major IGOs, as well as observers from other IGOs and NGOs, including IUFRO.[51] A complementary strand was formed around the World Resources Institute, a US-based think tank that specialised in resource economics. It produced estimates of the rate of deforestation and convened a task force with the United Nations Development Program, the World Bank and some of the bilateral aid agencies to see what could be done. Another strand was developed by the forestry advisers of government aid agencies of various countries and some major NGOs to coordinate their support for the plan. The plan was endorsed at the World Forestry Congress in 1985 and slightly amended in 1987.

[49] In the following sections I draw particularly on the work of D. Humphreys, *Forest Politics: the Evolution of International Cooperation*, Earthscan, London 1996. Id., *Logjam: Deforestation and the Crisis of Global Governance*, Earthscan, London 2006.

[50] Humphreys, *Forest Politics* cit., pp. 31-46.

[51] The IGOs were UNDP, UNEP, UNESCO, World Bank and the World Meterological Organisation. The organisations represented with observer status at the Committee's eighth meeting were the Asian Development Bank (an IGO), the African Timber Organization (an industry body), and five NGOs: International Institute for Environment and Development (IIED), International Union for the Conservation of Nature (IUCN), IUFRO, WWF and Caritas (Catholic relief and social justice agency), see "FAO Committee on Tropical Forestry", in *Unasylva*, 40, 1, n. 159, 1988.

The plan listed areas for action reminiscent of the British Empire's forestry creed and FAO's forest principles: land-use should be determined rationally between forestry and agriculture; 'institutional constraints' should be removed – which implied providing specific forest legislation – and public forest administrations should be strengthened. The plan also listed areas to develop forest industries and fuel wood supplies, and conserve forest ecosystems, but it did not give any guidance as to how any conflicts between them might be reconciled. Like the earlier documents, it was intended to promote the convergence of forest policies and practices. It set a Steering Committee in each country through which it attempted to catch national governments with the lure of donors funding projects that the Committee identified.

Once the process moved to the national level, it became more diverse because industries, environmental and people's NGOs became involved in roughly half the Committees, and the projects were variously funded by the United Nations Development Program, the World Bank, three International Development Banks and eighteen, mainly European countries.[52] It also generated a large bureaucratic apparatus. Internationally there was a support group within FAO, and layers of international meetings of the Committee on Forestry in the Tropics, FAO, the Forestry Advisers Group, donors, other IGOs and NGOs. Nationally there were team leaders, national co-ordinators, donor-sponsored consultants, field missions, round table meetings and reports to the supporting and funding agencies. It all gained considerable momentum.

### International Tropical Timber Organisation

Although not necessarily leading to loss of forest area, the gross exploitation of the world's rainforests to feed the timber demands of Japan and Europe from the 1970s epitomised the deep problems of trade and finance that underdeveloped countries faced in exporting primary products to industrial countries. It was a phenomenon

[52] Humphreys, *Forest Politics* cit., pp. 36-42.

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of globalisation. The UN called for a New International Economic Order in 1974 that would, among other things, encourage trade, provide just and equitable prices, and develop a code of conduct for transnational corporations. Although this provided a noble context, it was the unmasking of the extent of deforestation in reports by FAO, the World Resources Institute and UNCED, and the ardent campaigning by environmental NGOs that finally nudged the governments of 23 producing countries and 27 consuming countries into signing an agreement covering both commodity and environmental concerns in 1985. The agreement, renegotiated periodically, set up the International Tropical Timber Organisation (ITTO) that had to try and contain, or at least ameliorate the inherent conflicts between buyers and sellers, developed and developing countries, exploitation and conservation, trade and sustainability. Not surprisingly the task was fraught with difficulties.[53]

ITTO serviced its members with trade statistics, funded market research and reforestation projects, and issued technical reports, policy papers and practical guidelines for forest management. All this attempted to cast a net of influence over how the tropical forests should and could be managed to sustain both forests and trade, but it was limited to whatever consensus could be developed between producer and consumer governments as any regulation of the trade would have contravened the international trade agreements.

### 'Earth Summit' Conference 1992

Deforestation continued regardless of the Tropical Forestry Action Plan and ITTO's projects. Although the tropical forests were the main focus of global attention, the forest crisis was also apparent from the arid zone to the boreal forests. If the crisis was to be tackled globally, an international convention that could bind national

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[53] L. Dale, "Forests", in *Institutional and Infrastructure Resource Issues: Conventions, Treaties and other Responses to Global Issues*, G.M. Kutting (ed.), Encyclopedia of Lyfe Support Systems, UNESCO Publishing-Eolss Publishers, Oxford 2004, available at http://www.eolss.net.virtual.anu.edu.au, retrieved 12 May 12 2009.

governments was needed. The World Commission on Environment and Development's 1987 report, *Our Common Future*, highlighted the overall problems and proposed the optimistic concept of 'sustainable development' to deal with the environmental and development problems jointly.[54] It generated a momentum for change that led to the United Nations Environment and Development 'Earth Summit' Conference in 1992 where agreements could be negotiated.[55]  For the forests, the rifts between developing countries jealous to protect their sovereignty, developed countries like the US and UK committed to neoliberal policies, and the push for environmental protection were too great, so that nothing apart from a lengthy, non-binding 'Statement of Forest Principles' resulted for the forest sector. It was in the tradition of the British Empire's forestry creed and FAO's Forest Principles but with additions to acknowledge the environment, indigenous rights and public participation. Overall, the Earth Summit did negotiate a Convention on Biological Diversity and another on Climate Change that were relevant to the forests, and it caused the UN to establish a Commission on Sustainable Development.

### Attempts at influence after the Earth Summit conference

The failure of the Earth Summit to negotiate a binding Convention on Forests was followed by three types of attempts to address the forest crisis.  One persisted in trying to gain consensus in spite of the political and economic contradictions evinced at the Summit. Another was to see if market forces or corporate responsibility could achieve what governments could not. A third was to build partnerships and networks between the different levels and organisations concerned with forests. What resulted was an unprecedented maze of existing and new organisations, countless international meetings, and piles of reports, newsletters, action plans, recommendations,

[54] World Commission on Environment and Development, *Our Common Future*, Oxford University Press, Oxford 1987.

[55] Humphreys, *Forest Politics* cit., pp. 83-103, has detailed the raft of proposals and numerous preparatory meetings involved.

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web sites and so forth. The salient feature of all this activity was the complexity of the interactions between organisations.

*Attempts at consensus*

The Statement of Forest Principles did at least provide some base level of international agreement on which it might be possible to build a wider consensus, and the UN's new Commission on Sustainable Development provided an organisational framework to do so. Advised by an earlier Intergovernmental Working Group on Forests, the Commission established an Intergovernmental Panel on Forests with representatives not only from member governments, but also from FAO, ITTO, the World Bank and others. The eight agencies formed an Interagency Task Force on Forests to advance the Panel's work between its annual meetings.[56] At the same time, a group of eminent persons formed a World Commission on Forests and Sustainable Development in 1995 that functioned until 1997 concurrently with the operation of the Intergovernmental Panel on Forests. It did not gain UN recognition and had little influence beyond broadening discussion.[57] The Panel was reformed in 1997 as the Intergovernmental Forum on Forests, which added expert group meetings, discussion panels and 'multi-stakeholder dialogues' to its apparatus.

Meanwhile, new organizations and groups were formed at several levels to try and address the continuing forest crisis and influence the global negotiations. Local and indigenous communities were increasing their political voice in many parts of the world during the 1990s, and the Earth Summit had acknowledged that they should have a place in developing forest policies. They started organisations to assert their rights nationally, and the International Alliance of Indigenous and Tribal People to do so internationally.

The Earth Summit had agreed that sustainable forest management should be carried out according to 'internationally agreed methodologies and criteria', but although there was little prospect of a sin-

[56] Humphreys, *Logjam* cit., p. 26.
[57] Ibid., chapter 3.

gle global agreement on what these might be, it proved possible to negotiate a series of nine agreements for different forest regions of the world.[58] These agreements or 'processes' documented the criteria for sustainable forest management and the indicators by which each country was to report its progress. However, developing the processes and guidelines for how they might be applied required further lengthy negotiation. Mauro Agnoletti and others have documented the laborious path to have even one attribute – historical and cultural value – accepted through the tortuous European politico-bureaucratic system.[59] In essence, all the criteria and indicator processes amounted to was a mountainous bureaucratic reporting process that attempted to influence nations through peer pressure within each region.

### Attempts by certification and eco-labelling

Although ITTO developed its own set of criteria and indicators in 1992, it could not regulate directly. However, indirect regulation through the consumer market might be possible if forests could be certified as being managed in a sustainable way and if their timber was labelled. ITTO could never agree on this, but in 1994 a scheme was started by an independent NGO, the Forest Stewardship Council that set its own standard for how it would recognise a forest as being sustainably managed. Canadian and U.S. industry associations started their own schemes with less rigorous standards as did Indonesia and some other tropical countries.[60] European forest owners

[58] The agreements were: ITTO for humid tropical forests, Dry Zone Africa process, Ministerial Conference for the Protection of Forests in Europe, Montreal process for non-European temperate forests, Taraputo process for Amazon forests, Near East process, Lapaterique process, African Timber Organization, and Dry Forests in Asia. Ibid., pp.121-122.

[59] M. Agnoletti, E. Johann, M. Kulvik, A. Kushlin, P. Mayer, C. Montiel Molina, J. Parotta, I.D. Rotheram, Eirini Saratsi, "The Introduction of Historical and Cultural Values in the Sustainable Management of European Forests", in *Global Environment*, 2, 2008, pp.172-199.

[60] E. Meidinger, "The Administrative Law of Global Private-Public Regulation: The Case of Forestry", in *European Journal of International Law*, 17, 1, 2006, pp. 47-87.

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formed the Pan-European Forest Certification Council in 1998 to validate schemes developed separately in each country. Renamed as the Programme for the Endorsement of Forest Certification Schemes, it accepted non-European countries and by 2007 claimed to have 200 million hectares independently certified.[61] The Forest Steward-ship Council, with its more rigorous standard claimed to have certi-fied 113 million hectares in 82 countries.[62] Taken together, these two largest schemes cover about 7.8 percent of the world's forests. The extent to which such schemes were taken up in developed countries varied according to their trade balance in the global timber economy, domestic structure and forest policy history.[63] Their effectiveness in developing countries is unclear. In Brazil for example, Guéneau and Tozzi challenge the notion that forest management standards can be raised solely by such private governance. Rather, they show that they can only flourish within a framework that is legitimized nationally.[64]

### Attempts through partnerships and networks

As the diversity of interests and organisations involved was better understood, both the IGOs and the NGOs realised that they needed to widen their sphere of influence, and some of the international NGOs directed their energies away from international negotiations and towards the community level where they hoped that more might be achieved. The organisational arrangements that evolved formed a continuum from formal partnerships to web sites and newsletters distributed on the Internet.

Partnerships were 'the new fashionable concept… the dominant slogan in the rhetoric of public sector reform' which also offered both access to the skills, perspectives and contacts of other organi-

[61] http://www.pefc.org/ cited 23 June 2009.
[62] http://www.fsc.org/ cited 23 June 2009.
[63] B. Cashore, G. Auld, D. Newsome, *Governing Through Markets: Forest Cer-tification and the Emergence of Non-State Authority*, Yale University Press, New Haven 2004.
[64] S. Guéneau, P. Tozzi, "Towards the Privatization of Global Forest Govern-ance", in *International Forestry Review*, 10, 3, 2008, pp. 550-562.

sations, opportunities to influence policy.[65] However, Sarah Lister and Alan Fowler have shown that the mutuality envisaged by the partnership ideal is rarely possible where the partners have unequal power, and that imposing the processes, language and timetables of stronger partners only reinforces inequality.[66] The most notable form of partnership in the forest sector was formed in 1998 when the World Bank and the World Wildlife Fund (WWF) agreed to form the Alliance for Forest Conservation and Sustainable Use that led to a ban, later qualified, on World Bank lending for logging in primary tropical forests.[67] In 2000 the World Bank also joined Conservation International, the Global Environment Facility, the MacArthur Foundation and the Government of Japan in setting up a Critical Ecosystem Partnership Fund to preserve threatened ecosystems by providing funds to NGOs and local community organisations.

The World Bank and Japan, with The Netherlands, Norway, the UK and the USA also formed a partnership in 1993 to establish a substantial policy research organisation, CIFOR, mentioned at the start of this paper. Other countries and types of donor contributed later, some for specific projects. Its spread of funding, independent Board and its collaboration with universities, government agencies, IGOs and a few NGOs enabled it to produce more incisive reports than its partners could have done individually. RECOFTC mentioned earlier, with its focus on community forestry training in the Asia-Pacific region, is a smaller example. Thailand hosted the or-

[65] R. Wettenhall, "The Rhetoric and Reality of Public-Private Partnerships", in *Public Organization Review*, 3, 1, 2003, pp.77-107. J.M. Brinkerhoff, *Partnership for International Development: Rhetoric or Results?*, Lynne Rienner, Boulder 2000, pp. 3-6.

[66] S. Lister, "Power in Partnership? An Analysis of an NGO's Relationships with Its Partners", in *Journal of International Development*, 12, 2, 2002, pp. 227-239. Alan Fowler, " Introduction: Beyond Partnership: Getting Real About NGO Relationships in the Aid system", in *IDS Bulletin*, 31, 3, 2000, pp. 1-13.

[67] The Alliance issued guidelines for certification similar to those of the Forest Stewardship Council, Humphreys, *Logjam* cit., pp.171-177. The Alliance was renewed in 2005, http://www.worldwildlife.org/what/globalmarkets/forests/worldbankalliance.html, cited 13 July 2009.

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ganisation, and Norway, Sweden and Switzerland provided its core funds which were supplemented by 15 other international and IGO donors.[68] It worked in ten countries in partnership with the forest authorities, community organisations and local branches of international organisations, such as WWF-India. Partnership could take several forms. RECOFTC for example, classified its relationships into its institutional, program, project and network partners, as well as its occasional collaborating organisations.

IUFRO adapted from its purely scientific origins by starting new activities and entering partnerships.[69] It enabled scientific expertise to be available from 1983 through a Special Programme for Developing Countries, with funding from the World Bank and the United Nations Development Programme, and help from the Austrian Government from 1983.[70] It has now entered the contemporary global complexity by declaring that its 'stakeholders' are not only research organisations, universities and individual scientists, but also 'NGOs, decision making authorities, forest land-owners and other people who depend on forests', and entered into inter-agency agreements with other international forestry institutions.

The partnership arrangements of individual organisations in the forest sector overlapped. For example, CIFOR and RECOFTC counted each other as partners, and had 19 partners in common, including FAO, ITTO and WWF. More complex sets of inter-organisational relationships were created when some of the large organisations, with their own alliances and partnerships, collaborated in setting up new bodies. For example, a coalition of CIFOR, RECOFTC and ten other organisations funded by the UK, Canada, Norway, Sweden, Switzerland and the Ford Foundation established the Rights

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[68] http://www.recoftc.org/site/, cited 14 July 2009.

[69] IUFRO is an example of a general trend in scientific institutions. See E. Schofer, "Science Associations in the International Sphere, 1875-1990: The Rationalization of Science and the Scientization of Society", in *Constructing World Culture: Intergovernmental Organizations since* 1875, J. Boli, G.M. Thomas (eds), Stanford University Press, Stanford 1999.

[70] The Special Programme started in 1983. http://www.iufro.org/, cited 20 July 2009.

and Resources Initiative in 2005 'to advance forest tenure, policy and market reforms' with a 'pro-poor' agenda.[71] To advance its agenda, it worked with ITTO's Civil Society Advisory Group, the Global Alliance of Community Forestry, and MegaFlorestais, an informal discussion group of leaders of public forest agencies from the twelve most forested countries. It supported new networks in Africa and Latin America thus adding further strands to the organisational mesh.

At least thirteen international forest organisations with 'network' in their name were started from the 1990s. For example, timber certification was advanced by the Forest and Trade Network organised as a partnership between the WWF and timber merchants and retail companies. It evolved into a network of networks operating in some 30 countries. Some networks, such as the European Tropical Forest Research Network and the International Canopy Network were concerned with science co-ordination and information, while others such as the Model Forest Network and the Global Forest Coalition advocated social development. New networks continued to be formed. For example, the Forests Philanthropy Action Network was formed in 2008 initially to provide information about charitable donation to counter deforestation. In the same year, FAO's longtime collaboration with the UN Economic Committee for Europe launched its Forest Communicators Network. The 'network' label is also used less formally by organisations for their web sites, newsletters and publications on the Internet.

Through all the networks, collaborations, alliances and partnerships, virtually every organisation concerned with forests in the world is now connected directly or indirectly to every other one. With connection to the Internet, there are few barriers to the diffusion of information, but the diffusion of influence is a different matter.

### Nets of influence

The history of attempts to influence the conservation and man-

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[71] http://www.rightsandresources.org/, cited 14 July 2009.

agement of the world's forests has been sketched in this paper through the creation of international organisations since the 1890s. The attempts were seen in the context of changes in the world political economy, changes to the forests themselves and changing ideas about how forests should be conserved and managed. The foundation ideas and institutions of modern forestry that had been the global norm for a century were challenged during the environmental era as contradictions emerged between the ideas of conservation for use and the preservation of biodiversity, and between these and local or indigenous rights. Although the environmental contradictions were more or less accommodated in European and other developed countries – by improving practices and creating exclusive conservation reserves – greater difficulties occurred elsewhere. New forms of forestry, with their own organisations, cultures and intents arose as *additions* to the, albeit amended, foundation form. By the end of the twentieth century forestry was a clearly multicultural endeavour.

The modes by which the attempts at influence were exerted across national borders also occurred as additions, rather than as replacements. For examples, IUFRO continued to facilitate sharing scientific information, sets of policy principles continued to be advocated, and FAO continued to provide technical assistance and aid. All these modes extended their reach and were applied by an increasing number of organisations. The mode of international law envisaged in the proposed Forests Convention notably failed at the Earth Summit. Its failure revealed not only the gulf between the political-economic interests of developed countries and those of developing countries, but also the paradox that the developed countries which strongly defended their economic dominance were also the countries from which the conservation and preservation goals were strongly championed.

The attempts at influence gave rise to numerous organisations and a net of inter-organisational relationships that cover the world's forests in the twenty-first century. Although their construction and extent has been shown in this paper, their influence remains unclear. The general question is whether such a mode of influence amounts to a mode of governance. David Lazer stresses the way in which regulatory models diffuse through global networks, and Arthur Mol

sets out cases in which globalisation has enhanced what he describes as ecological modernisation.[72] However, Mol also reports ambivalent views between optimistic claims of the power of civil society and the universality of environmental norms on the one hand, and pessimistic assessments of what can be achieved on the other. Rather than evaluate the forests case in this way, the global net of influence can be regarded as an additional layer in which the existing forms of forestry are – to use Burton's words, cited earlier – mutually if unevenly constituted.

In discussing the forests context early in this paper, the point was made that attempts at state regulation and influence were only partially successful because the forests were dispersed and the social interests were diverse. What applied at the national level, applied even more at the international and global level. Any consideration of forests encourages taking a long view. The complex net of organisations that we have today will take time to exert its various influences, but the globalised world will also change in larger ways and new attempts to conserve and manage the forests will doubtless have to be found.

## Acknowledgements

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[72] D. Lazer, "Regulatory Capitalism as a Networked Order: The International System as an Information Network", in *Annals of the American Academy of Political and Social Science*, 598, 2005, pp.52-66. A.P.J. Mol, *Globalization and Environmental Reform: the Ecological Modernization of the Global Economy*, MIT Press, Cambridge, Massachusetts 2001.

# Appendix – List of acronyms

CeTSAF Centre for Tropical and Subtropical Agriculture and Forestry (Germany)
CIAS Centre for Integrated Area Studies (Japan)
CIFOR Centre for International Forestry Research
COINACAPA Cooperativa Integral Agroextractvistas Campesinos de Pando (Bolivia)
EMBRAPA Empresa Brasileira de Pesquisa Agropecuária (Brazil)
FAO Food and Agriculture Organisation of the United Nations
FECOFUN Federation of Community Forest User Groups (Nepal)
FLASCO Facultad Latinoamericana de Ciencias Sociales (Guatemala)
FORDA Forestry Research and Development Agency (Indonesia)
ICRAF World Agroforestry Centre
IGO Inter-governmental organisation
ITTO International Tropical Timber Organisation
IUCN World Conservation Union
IUFRO International Union of Forest Research Organisations
NGO Non-governmental organisation
RECOFTC Regional Community Forestry Training Centre for Asia and the Pacific
UK United Kingdom
UN United Nations
UNCED United Nations Commission on Environment and Development
UNEP United Nations Environment Programme
USA United States of America
WCS Wildlife Conservation Society
WHINCONET Western Highlands Nature Conservation Network (Cameroon)
WOCAN Women Organizing for Change in Agriculture and NRM (USA)
WWF World Wildlife Fund