The Hindu Kush Himalayan Region
– Addressing Mountain Challenges –
by Krishna Prasad Oli and Madhav Bahadur Karki

Introduction
The International Centre for Integrated Mountain Development (ICIMOD) was established in 1983 under a common charter signed by UNESCO and the eight regional member countries of the Hindu Kush Himalayan (HKH) region. The Government of Nepal enacted the ICIMOD Act through its Parliament in accordance with the agreements reached between it and UNESCO. The Centre’s primary objectives are to develop an economically and environmentally sound mountain ecosystem and to improve the living standards of mountain people in HKH region.

The HKH region sustains over 210 million people as well as impacting on the lives of another three times as many people living on the plains and in the river basins below the mountains themselves. It is the world’s highest mountain region, and also contains its poorest people and most complex societal systems. Geographically, the HKH region extends over 3,500 kilometres from Afghanistan in the west to Myanmar in the east, and ranges from the plateau regions of Tibet and other mountain areas of China in the north to the Ganges Basin of India in the south. As a macro-region, it contains the upland watersheds of major river systems: the Indus, the Ganges, the Brahmaputra, the Nu-Salween, the Lacang-Mekong, and the Yangtze (Jinsha). The wealth of the HKH lies in its immense diversity of flora, fauna, ethnic groups and languages, and the water resources that it possesses in the form of snow in the Himalayas.

Dependence on biological resources through the application of Traditional Knowledge (TK) is the major livelihood option of the mountain communities. Transboundary movement of biological resources and their products with associated TK is a major trade in the area. In the process, a variety of pressures both natural and anthropogenic has often led to conflict, and sometimes this conflict erupts in violence. For all these reasons, regional cooperation and knowledge sharing – bringing together regional policy makers and planners on a non-political platform – is critical to addressing effectively the poverty and environmental priorities of the region. This is why ICIMOD was established.

At its inception, ICIMOD steered an uncharted path, as the first organisation of its kind to be headquartered in Kathmandu. Established to serve the HKH region through an ambitious mandate that gave it the responsibility to mobilise knowledge and disseminate it along with skills commensurate to its use, the acquisition and dissemination of relevant knowledge concerning mountain development in the Hindu Kush-Himalayas was ICIMOD’s most important activity. Its statutes guide the Centre in the handling of knowledge and in its role as a knowledge bank, as a trainer, as an advisor, and as an advocate for mountain areas and the populations inhabiting them.

ICIMOD – a Dynamic International Centre
In the two and a half decades since the centre was established, many mountain areas in the HKH region have witnessed profound changes; both positive, from implementation of conservation policies, as well as negative, due to pressure from increased infrastructure development, urbanisation and population growth. These pressures are further compounded by the rapid economic growth in countries such as China and India. The impact of these phenomena on the environment, as well as of climate change regionally and globally, has been so intense and so rapid that traditional and balanced adaptive mechanisms are struggling to cope. To address this challenge, ICIMOD is working with interdisciplinary teams to develop new adaptation and coping mechanisms, to assist the communities and nations of the HKH region to manage successfully the unprecedented changes that are taking place, to derive optimum benefits from their environment and natural resources, and to minimise the risk of disasters such as floods.

ICIMOD is addressing the issues of environmental degradation, rural poverty, social and gender inequality and governance from the perspectives of capacity building and community-based management of natural resources. As South Asia is home to nearly half of the 900 million poor in Asia, and as it has rampant unemployment and glaring income inequalities, poverty alleviation must constitute a major thrust of development strategies. Overall macro-economic policies and development strategies are often deficient and inconsistent with national goals and targets set locally; the resources they make available are inadequate; and the institutional frameworks they employ have largely been inefficient. The policies governing agriculture, and natural resource use and conservation, are generally sectoral and lack the synergy and complementarity...
tarity that comes from an integrated approach. Policies are typically designed by planners who are urban-based and urban-biased, and who typically take a “plains” approach even when dealing with mountainous areas. The result is that their programmes have market imperfections and price distortions that favour urban consumers and other more vocal constituents. The mountains and hills, due to poor accessibility, fragility and marginality, have proportionally more poor and are deprived of capital, technology and extension services. Therefore, there is a need for pro-poor and mountain-focused policies and an institutional framework in the HKH region to address the twin problems of ecosystem degradation and persistent poverty. ICIMOD in collaboration with its members and partners is engaged to address these challenges.

Addressing these issues requires a radical and dynamic approach, and ICIMOD has developed its new strategy through consultation with national and regional stakeholders and others.

ICIMOD’s Vision and Mission

Vision
The mountain population of the greater Himalayas enjoys improved wellbeing in a sustainable global environment.

As an independent intergovernmental organisation, ICIMOD wants to build a future where the mountain people of the HKH region can experience improved livelihoods, increased social and environmental security, adapt to environmental and climate changes, be better prepared for natural disasters, and enjoy the benefits and opportunities afforded by the region’s rich natural resources and cultural endowments equitably and sustainably.

Mission
To enable and facilitate the equitable and sustainable wellbeing of the people of the Hindu Kush-Himalayas by supporting sustainable mountain development through active regional cooperation.

ICIMOD also wants to strengthen its position as a regional knowledge, learning and enabling centre in the key areas of sustainable livelihoods and poverty reduction, environmental change and ecosystem services, and integrated water and hazard management by acting as a broker of ideas, a forger of new partnerships, a provider of seed funds and a promoter of knowledge and evidence-based advocacy.

Overall and Strategic Goals

The overall objectives of ICIMOD are based on its desire to be a recognised regional knowledge, learning and enabling centre, and to understand environmental and economic changes in the HKH region by adopting the following strategic goals:

- To increase the regional awareness and capacity needed to effectively reduce poverty among mountain people by improving the sustainable management of natural resources;
- To use a multidisciplinary research approach to address issues on environmental change in the region, to draw attention to the environmental services provided by HKH mountain areas to plains areas (and globally), and to find appropriate solutions to improving the wellbeing of HKH communities;
- To expand strategic regional and global partnerships and to cooperate with regional and global centres of excellence to jointly manage globally important resources such as water, energy and biodiversity;
- To promote dialogue, networking and the exchange of information and experiences between and amongst the stakeholders of the region by documenting, synthesising, disseminating, and applying relevant information, knowledge and good practices; and
- To provide professional services, technical advice and project management know-how to the regional member countries to assist them in scaling up ICIMOD-generated knowledge and technologies.

Programmes

ICIMOD’s work centres around three Strategic Programmes: Integrated Water and Hazard Management, Environmental Change and Ecosystem Services, and Sustainable Livelihoods and Poverty Reduction, with the support of the cross-cutting Integrated Knowledge Management group and other units. Through these three strategic programmes, ICIMOD promotes rational management of the water resources which impact the population.
as well as the region’s ecosystems, and carries out research on water-related issues through regular monitoring and scientific analysis, with the ultimate objective of helping mountain people develop appropriate policies and good practices that will improve the management of ecosystem services, increase the recognition of the value that these services provide to downstream communities, and ensure adequate compensation for upstream communities. The region’s rich biodiversity will be conserved at the same time as fair and equitable benefits are gained from accessing biological resources.

ICIMOD intends to promote strategies, options and opportunities specifically aimed at the rural poor in the HKH by monitoring the poverty situation and its drivers, conducting in-depth analyses of potentials, and promoting concrete solutions (in the form of niche products, value-added services and policy options) all aimed at improving livelihood options for the mountain poor that will visibly and measurably reduce their poverty and vulnerability. To this end, ICIMOD seeks to develop its capacity to monitor and analyse the factors that cause poverty and to better recognise its indicators. The emphasis will be to help the people of the HKH adapt to change and allay its harmful effects.

ICIMOD’s Partners

In order to realise its Vision and Mission, ICIMOD will need to build partnerships with institutions nationally, regionally and globally. ICIMOD’s nodal partners are mainly government agencies from the Regional Member Countries (RMCs) who represent their member countries on ICIMOD’s Board of Governors. ICIMOD is working towards strengthening partnership through engaging members in the programme to develop the sense of ownership among these members. ICIMOD’s strategic partners are those who share the same goals and same objectives as the Centre and who have a long-term commitment to ICIMOD, which may be contractual or simply professional. They exist independently of the Centre and have either similar (or ideally) complementary core competences. Strategic partners include financial partners, INGOs, NGOs, community-based organisations (CBOs), private sector or government organisations, and parastatal entities. Of particular importance are international centres of excellence who can cooperate on a policy level, who can help on a practical level (to customise international knowledge and know-how), and who can promote ICIMOD’s agenda in the wider world. The ICIMOD’s Support Group (ISG), its Independent Board Members, and its nodal partners are also strategic partners in this latter sense.

ICIMOD also needs partners for the practical operationalisation of projects; these are its cooperation partners. They have the same or similar objectives as ICIMOD on the operational level. They help ICIMOD to implement projects through contractual arrangements which are usually jointly funded. The partnership is limited in time and extent; but on completion of the contract it may continue informally in the form of exchange of information and networking. ICIMOD’s advocacy partners are groups who lobby for causes of common interest to the Centre (like mountain development) on their own initiative. ICIMOD supports these groups who typically consist of local authorities, NGOs and CBOs by providing them with information and by joining with them in networks, enabling them to increase awareness among the general public and policy makers. Their relationship with ICIMOD is one of information and knowledge sharing, with no formal commitment from either side. ICIMOD identifies research centres and universities as knowledge partners which can help it to promote the mountain agenda. Such cooperation creates synergies, and increases the capacity for data analysis and synthesis; they can assist ICIMOD in capacity development, knowledge dissemination, and international exchange and networking. ICIMOD’s development partners support the Centre because they have a strong belief in and commitment to the mountain agenda and they value the goals that ICIMOD strives to achieve in the HKH region. Currently most of them make core contributions to the Centre and some also support specific projects. ICIMOD’s financial partners are partners who contribute financially to the Centre. In this case, “partner” is used to emphasise their acknowledgement of the fact that they, their countries, and the wider world will also benefit from the results of the work which is carried out here in the HKH region. Ideally, financial partners are both strategic and development partners.

Lessons Learned

Since ICIMOD’s establishment, it has learnt some lessons from working in the region. Community-based natural resource management is the most important aspect of development and conservation. It has brought many indigenous local communities together and has enabled the relatively fair and equitable distribution of benefits from such use of natural resources. It can take the form of pastoral, forest or other forms of management.

Secondly ICIMOD has approached the problem of income poverty by focusing on underused crops and niche products and activities such as beekeeping, medicinal plants, local tourism, renewable (clean) energy, and drudgery-reducing technologies for women. All these projects have had capacity-building and training elements built into them as well. The results at the pilot level have shown that these initiatives can significantly reduce poverty by increasing incomes for the poor through sale of products, as well as through providing services such as nature and culture-based tourism.

Decreasing Risk and Vulnerability to Natural Disasters

ICIMOD has been raising awareness among policy makers on the importance of including all stakeholders in planning for disaster management for vulnerable communities in the region. The Centre has supported partners in drafting and putting in place policies and institutional frameworks for multi-sectoral planning; it has also helped RMCs to create well-coordinated disaster preparedness systems in collaboration with government and civil society. Similarly, ICIMOD is moving forward in its efforts to develop meaningful regional cooperation in flood control,
and to improve its understanding of integrating water and land resource management issues.

**Addressing Social and Gender Inequity and Inequality**

ICIMOD has focused its action research and community approaches to addressing various forms of social inequity, such as gender discrimination and ethnic marginalisation, which reinforce inequity and inequality. The Centre has developed a better understanding of the different social and cultural contexts in developing options and strategies for mainstreaming these aspects into its programmes.

**Current Activities**

ICIMOD has a clear strategic focus that prioritises improving livelihoods and reducing poverty in its three key areas. This is reflected most in the programme on sustainable livelihoods and poverty reduction although these are recurring themes which appear throughout the three Strategic Programmes. The overarching goal of all the Programmes is to have a definite impact on the lives and livelihoods of mountain communities.

Through the concrete cooperation mechanisms and programmatic interactions with RMC partners the programmes are designed, planned and implemented by interdisciplinary teams that draw on each others’ expertise in order to deliver programmes which have both a clear focus and a breadth which comes from this multi-dimensional approach.

ICIMOD wants to achieve increased ownership of the Programmes by the stakeholders (especially those in its RMCs and international development partners who provide core support). As part of this aim, ICIMOD expects RMCs to contribute to ICIMOD costs to a greater degree than they have done in the past and to be involved to a greater degree in programme development and management. International stakeholders will be involved not only as financial partners but also as collaborators who share resources and knowledge and help to promote the Centre beyond the region.

As a knowledge and learning centre, ICIMOD will increase its internal capacity to document and further develop knowledge, and will improve its ability to share information and communicate results. For this, additional instruments will be needed to improve the capture, packaging and sharing of information as part of a comprehensive process. Sharing and communicating information will be facilitated by consolidating ICIMOD’s corporate identity and by making “ICIMOD” a household name.

**Note**

1 Poverty in the ICIMOD context is considered to be a multi-dimensional phenomenon characterised by many interdependent factors including increasing marginalisation.

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**Traditional and New Challenges to the Marine Environment**

by Arianna Broggiato*

The FNI1 convened an international conference “The World Ocean in Globalisation: Challenges for Marine Regions”, from 21–23 August, 2008, in Oslo.2 One hundred and eighty-eight participants from 40 countries took part, including scholars in international law, international relations, marine management and technical and natural sciences; national decision makers and representatives of international organisations, NGOs and industry (fishing, shipping, oil). FNI’s conference was offered in celebration of its 50th anniversary and the 25th anniversary of the entry into force of the United Nations Convention on the Law of the Sea (UNCLOS).3 It also noted the forthcoming 400th anniversary (in 2009) of the publication of Mare Liberum, which established the foundations of the contemporary law of the sea regime based on the then-recognised freedoms of the high seas (navigation and fishing).4

FNI used this occasion as a reason for presenting an independent and qualified forum for the exchange of views, analyses and comments on challenges for seas and marine regions, and their resources, in the face of increasing globalisation. This was the third Conference organised by the FNI on ocean governance: the first, in July 1983, was co-organised with the 17th Conference of the Law of the Sea Institute of the University of Hawaii – Honolulu; and the second in August 1998, in Oslo, entitled “Order for the Oceans at the Turn of the Century”, addressing implementation aspects following the entry into force of the Convention. The conference addressed, in a cross-sectoral manner, several key issues: on the one hand, the traditional high seas freedoms of fishing and navigation with their negative effects on the marine environment and the global and regional efforts to solve them; and on the other hand, new and contemporary challenges such as climate change impacts, the introduction of invasive alien species and the regulation of marine genetic resources and bioprospecting.

**Fishing: Sustainability of High Seas Fisheries and IUU Fishing**

Fishery resources are finite and fishing is having significant adverse effects on the marine environment. Despite increasing restrictions on the high seas freedom of fishing thanks to the United Nations Fish Stock Agreement5 (UNFSA) and the Regional Fisheries Bodies (RFBs),6 over-exploitation is still expanding at the expense of sustainability. Globalisation, climate change and other factors, such as the introduction of invasive alien species, marine pollution and the existence of free riders in the

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framework of RFBs, are also putting even more pressure on resources. Current forecasts for high seas fisheries are frightening: it has been estimated that if current fishing patterns continue, all major commercial fish species will have suffered population collapses by 2048.

Many suggestions have been offered to help RFBs promote sustainability, including proposals to:
- strengthen implementation of and compliance with RFB measures;
- establish new RFBs, addressing areas and/or species not already covered;
- impose trade bans on certain products originating from non-cooperating or non-contracting parties;
- eliminate fisheries subsidies that encourage over-fishing;
- establish a moratorium on the entry of additional large vessels into the covered fishery;
- develop vessels lists;
- adopt port state measures;
- create proper cost-sharing mechanisms among stakeholders; and
- stimulate responsibility among consumers through eco-labelling.

One critical challenge, connected to the “free rider problem” is to make the rewards for compliance with RFBs and with international standards greater, or at least more secure than those for non-compliance.

All these measures would also benefit the struggle against another important problem threatening sustainable fisheries: illegal, unreported and unregulated (IUU) fishing. Globalisation is no longer only a characteristic of the international market of goods and services, but also of the criminal activities developed in the framework of the market, and of the international responses to this criminality. IUU fishing has been recognised as one of the main threats to sustainability of fisheries and it has been treated as a cross-cutting issue during the whole conference, since its consequences are worldwide and affect all aspects of marine management: from navigation to environmental protection. It damages ecosystems, hurts fisheries workers and undermines the credibility of RFBs. For example, there is a legal loophole within the framework of an average RFB: a ship can quickly change its name, ownership and flag to evade enforcement measures, even while at sea; therefore a vessel owner from a State party to a RFB is free to re-flag the vessel to another State and fish in the same water while not respecting the same rules as his fellow nationals, and he is not required to declare the vessel’s history before re-flagging. This example demonstrates that failure of flag states’ responsibility remains the major flaw in the high seas regime of fisheries.

It is difficult to assess the extent of IUU fishing, its actual value and percentage of the legal harvest, but the UN Food and Agriculture Organization (FAO) has tried to give an estimate: out of the US$71.5 billion of total capture fisheries in 2004, US$4–15 billion is attributable to the illegal market, and some organisations claim that this is an underestimate of the true value of the phenomenon. IUU fishing is so lucrative that, even if the owner of a vessel undertaking such illegal activity loses the vessel due to an enforcement measure, the loss can rapidly be covered by the income from the other vessels he inevitably owns. This means the punishment is not a great deterrent. Moreover, many participants in the debate underline that unregulated activities are not always illegal: there is also the matter of legal overfishing, driven by market demand and by misguided economic subsidies.

Progress has been noted at the global level on several fronts: the FAO has been active in promoting sustainable fisheries and in supporting RFBs. Many normative instruments have been adopted, demonstrating a switch from a flag state approach to an holistic approach focusing also on the role of the port State and pursuing all phases of the operations (harvesting, processing, transshipping, transporting, selling, marketing, and also supporting activities such as financing, vessel refuelling, re-supplying), and not only the act of fishing. These instruments provide a set of tools that flag, coastal and port States can adopt to combat IUU fishing and to develop monitoring, control and surveillance (MCS) systems. They also include internationally agreed market-related measures to be applied to block movements of IUU-caught products into international trade, and encourage countries and RFBs to adopt plans of action. Finally, they propose capacity-building measures to assist developing States to implement the instruments.

Unfortunately, all these instruments are voluntary and not binding. Work is underway, however, to negotiate a binding instrument on Port State Measures. An FAO Expert Consultation11 in 2007 analysed that draft12 as coming to no concrete result but enabling future development, which is expected in January 2009.

Technical developments have proven crucial in the fisheries management process, enabling agencies to obtain information on the frequency and the extent of unauthorised fishing activities. Among the MCS tools currently in use, the satellite-based vessel monitoring systems (VMS) have been shown to be very effective. Since their appearance in the late 1980s, their use has expanded steadily, so that more than 80 countries are reported to use these tools or to have expressed the intention to do so. Many RFBs require the use of VMS by all vessels fishing in their competence area. VMS allows monitoring agencies to obtain information on vessel position, speed and heading. If integrated with other devices, it can provide much more. For example, in conjunction with vessel detection systems (satellite imaging of a particular area for a certain period of time showing the quantity and location of all the vessels operating in the area), VMS can give an idea of the extent of the activities undertaken in that area.

Another important tool is the system of vessel registration. Although a simpler tool, not requiring the same level of technology, registration is not required in all countries, nor for all vessels (some countries apply it only to large vessels or for vessels fishing outside territorial waters). In March 2009, the FAO Committee on Fisheries will consider the next step toward the goal of an international registry, based on its review of the work of an FAO Expert Consultation on vessel registration and
fishing licensing or authorisation systems. This will be a major task for the FAO.

Finally, it is expected that video monitoring onboard the vessels will increase, especially with respect to catch. Reportedly, stakeholders have started to cooperate in many different ways. Among the tools for encouraging such cooperation, many RFBs have proposed or begun drafting black lists or authorised lists of vessels, and establishing networks, such as for example the International MCS Network, the first voluntary organisation for fisheries MCS professionals which facilitates contacts and exchange of information.

However, it is important to keep in mind that the illegal actors are adopting the same advances in technology, in order to keep their activities safe and uncontrolled, leading back to the primary focus of this area – the implementation of measures against IUU fishing.

Finally, an important issue, which was stressed by the participants, is fleet overcapacity. No comprehensive study has been undertaken so far to analyse overcapacity of fishing fleets, therefore no data exists on the extent of the necessary reductions to apply.

**Navigation: Oil Pollution and Introduction of Invasive Alien Species**

Maritime activities account for almost 90% of the world’s trade and transport. The critical current issues related to transport at sea include: oil spills, inadequate environmental preparation, ships’ emissions (still not included under the Kyoto Protocol) and invasive alien species.

The OECD has estimated that each year, the intentional discharge of waste oil in violation of MARPOL Annex I causes up to eight times as much pollution as accidental and negligent spills. Corporate relaxed attitudes regarding intentional spilling are often attributable to corporate culture, and basically financially based in the desire to avoid the costs of retrofit, maintenance, spare parts and the use of waste disposal facilities.

New reports of best practices include the Finnish administrative “oil pollution fee”, adopted in 2006 as an amendment to the Act on the Prevention of Pollution from Ships, and the criminal fines imposed in vessel-pollution cases in the United States. The Finnish Border Guard imposes fines on the ship-owner or the shipping company when violations occur in the EEZ. The level of the fine depends on the estimated amount of oil spilled and on the tonnage of the ship.

Regional and sub-regional developments are led by the Mediterranean Sea, which represents only 1% of the world’s ocean surface, but is used by approximately 30% of the global maritime trade, including maritime transportation of one-third of the world’s oil. In particular the Adriatic Sea has long been a route for strategic oil imports, and on the verge of becoming a critical route for oil and Caspian oil via these routes. It is feared that this and other developments may worsen the plight of marine living resources, already threatened by over-exploitation and IUU fishing. This combination of stresses may exacerbate the political imbalance in the region, as evidenced by ongoing maritime delimitation disputes in the sea. Clearly, there is a need for uniform internationally recognised standards and requirements.

The movement of alien and invasive species and their spread have been recognised as among the most important threats to marine biodiversity and habitats, increasing the rate of extinctions of native species. Unlike traditional forms of pollution, the introduction and establishment of an invasive species is a virtually irreversible phenomenon, resulting in permanent environmental devastation. Ballast water exchange – the most direct mechanism causing the introduction of invasive alien species – is estimated at 3–10 billion gallons of water each year. Each exchange may carry as many as 7,000 different species, incurring costs of approximately US$138 billion a year, in the USA alone. Beyond this, marine invasives may be transported through hull fouling or in some cases in the cargo itself. These problems are perhaps most severe in the case of semi-enclosed seas, such as the Adriatic and Black Seas, where fragile ecosystems cannot be protected by rules that are based on not discharging ballast water within a specified distance from shore.

In 2004, adoption under the International Maritime Organization (IMO) of the International Convention for the Control and Management of Ships’ Ballast Water and Sediment was intended as a first step to prevent, reduce and ultimately eliminate the transfer of harmful aquatic organisms and pathogens through the control and management of ships’ ballast water and sediments. That Convention requires all ships to implement a Ballast Water and Sediments Management Plan, to carry a Ballast Water Record Book and to carry out ballast water management procedures to a given standard. It includes a phased approach to retrofitting ships, imposing tank capacity and construction requirements on new ships relatively quickly, and on others through a series of deadlines, depending on the construction date of the ship and on its ballast-water tank capacity. The Convention is expressed hortatorily, however, in part due to the lack of workable technical solutions, and particularly the fact that it could not define special solutions for semi-enclosed seas. The conference considered two suggested technical solutions: the use of double-hulled tankers (to avoid completely the exchange of water), and the addition of ballast water to neutralise any living organisms (still under study, regarding issues of toxicity, cost and other impacts). IMO, the United Nations Development Programme (UNDP) and the Global Environment Facility (GEF) joined efforts in the development of the GloBallast Project, documenting the overall problem in a documentary entitled “Invaders from the sea”, which was screened during the conference.

**Climate Change**

Climate change phenomena affect marine resources in various manners, causing a rise in water temperatures and levels, affecting currents, and generally influencing commercial species populations (localisation and abundance) by inducing variability in time and spatial scales. In essence, climate change worsens the consequences of
critical issues, such as overfishing and depletion of marine living resources, and by opening polar shipping lanes, enables greater access to petroleum resources and more favourable conditions for ship transport in fragile areas, such as the Arctic. In addition to ecological impacts, this will lead to political instability and potential jurisdictional claims in the region (see page 342). Moreover, reduction of ice extent amplifies global warming effects, and increases emissions of greenhouse gases from breakdown of organic material when permafrost melts.

From a sub-regional and regional perspective, the distribution of the temperature anomalies is uneven: in the Arctic the temperature increase has been double the global rate over the last 50 years. The rate of decrease in sea ice extent is much faster than scientifically modelled projections, and this demonstrates that there are serious gaps in our current knowledge about sea ice dynamics.

Marine Genetic Resources in Areas beyond National Jurisdiction

A controversial new challenge in the law of the sea relates to the issue of marine genetic resources (MGRs) in areas beyond national jurisdiction. Since 1996, it has been argued\(^3\) that, while mineral resources of the deep seabed are regulated by UNCLOS,\(^2\) they are not feasibly exploited, but marine genetic resources, which appear to be exploitable, are not regulated under UNCLOS. As was formerly stated about terrestrial genetic resources, it is currently claimed that there are huge economic interests\(^2\) linked to the exploration and exploitation of MGRs. The issue is politically sensitive: the debate is among the developing countries pushing for application of the regime of the common heritage of mankind, with a share of the benefits, and the developed countries (that have already acquired the technology to start exploitation) pushing for application of the freedom of the high seas. Many attempts have been carried out at the global level to find a compromise between the two opposing positions: the United Nations Informal Consultative Process on Oceans and the Law of the Sea\(^4\) (UNICPOLOS) discussed the issue in 2007, and an Ad Hoc Working Group has been established by the UN General Assembly and met in 2006 and 2008. Neither of these diplomatic fora could accommodate the opposing points of view into a practical solution; the only practical proposal came from the European Union which suggested negotiation of an “implementation agreement” to the UNCLOS, including the management of marine biodiversity of areas beyond national jurisdiction. This proposal has not yet been formally discussed or more concretely stated.\(^5\)

During the Conference, participants expressed frustration that theoretical principles seem to receive more attention and importance than concrete solutions. They underlined the need to clarify the commercial value and economic feasibility of exploitation of deep-sea MGRs, before creating a massive regime of management. Participants also called for the harmonisation of this work with long ongoing negotiations in international fora discussing intellectual property rights and in the Convention on Biological Diversity.\(^6\)

Interaction among Science, Technology and Politics

The conference, by bringing together scientists, jurists and decision makers, highlighted the interaction between science, technology and politics in ocean affairs, a congregation necessary to any effective action on the confluence of sustainable fisheries, conservation of the marine environment, globalisation, climate change, maritime safety routes and development, and to enable all stakeholders to work in an environment of mutual trust and cooperation.

The oceans know no political or jurisdictional boundaries, therefore the application of the ecosystem approach is fundamental: as underlined several times during the discussion “you cannot pollute one side of the cup of tea and then drink from the other side!” More political will is needed for efficient governance of the oceans and for a fair balance between environmental protection, economic development and social equity.

Celebrating the 25th anniversary of the entry into force of UNCLOS, we should keep in mind its very purpose, which is such a living matter now: to establish “a legal order for the sea and oceans which will facilitate international communication, and will promote the peaceful uses of the seas and oceans, the equitable and efficient utilization of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment”.\(^2\)

Notes

1. The Fridtjof Nansen Institute (FNI) is a Norway-based independent foundation engaged in research on international environmental, energy and resource management politics. Within this framework the institute’s research is mainly grouped around six key areas: global governance and sustainable development; marine affairs and law of the sea; biodiversity and biosafety; Polar and Russian politics; European energy and environmental politics; and Chinese energy and environmental politics.
2. At the Telenor EXPO’s conference facilities, in Fornebu.
4. Written by Hugo Grotius, and published by Elzavier in Spring 1609. These two basic freedoms were enunciated on the basis of the perception at the time that the natural resources of the sea (fish resources) appeared to be unlimited (unlike natural resources found on land and in fresh water, which could be depleted). On this basis oceans were considered to be free for trade to all and free for all to fish. Recognition of natural limits on ocean resources has occurred only recently.
6. A variety of organisations have been established to address fisheries issues at the regional level. Most have specifically cited article 8 of the UNFSA as their formative authority, and stated the goal of conserving and managing, on a regional basis, the sustainability of straddling and highly migratory fish stocks. Currently, there are 38 RFBs, with 101 member States.
11. Usually made up of 12–20 experts selected under geographical criteria, sitting in their own capacity and not representing States, that provide advice on a particular topic.
12. This process was primarily conducted through intergovernmental meetings...
Understanding the Democracy-Environment Interface

by Achim Halpaap*

How can democracy and environmentally sustainable development be made compatible and mutually supportive? This question was at the centre of discussions at the UNITAR-Yale Conference on Environmental Governance and Democracy. Institutions, participatory environmental governance, and capacity development, at Yale University, New Haven, Connecticut, at the margins of the sixteenth Session of the United Nations Commission on Sustainable Development (CSD). Some 150 environmental governance scholars and practitioners from more than 65 developed, developing and transition countries met to discuss the topic, reflecting the growing demand for research, teaching and capacity building in the field of democratic environmental governance.1

Environmental Policy and Governance Context

Public participation in environmental decision making and implementation has become a cornerstone of national and international environmental governance. Cited benefits of public participation include, for example, improving the quality of decision making, facilitating policy implementation, enhancing accountability of institutions and promoting environmental sustainability.2 At the international level, Agenda 21, the World Summit on Sustainable Development (WSSD) Johannesburg Plan of Implementation (2002), as well as Principle 10 of the Rio Declaration and the 1998 UN Economic Commission for Europe (UNECE) Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention) have become important driving forces for participatory environmental governance.3 Given these developments, many countries have enhanced their efforts to engage the public in national, regional and local environmental decision making, taking into account their political, social and cultural circumstances.4 More recently (and increasingly), public participation is also taking place within the context of corporate environmental governance.5 Finally, the growing importance of multilateral institutions has catalysed a debate on how to best engage the public in international environmental governance.

Conference Overview

Speaking on the theme of international environmental governance during the opening session, James Gustave Speth, Dean of the Yale School of Forestry and Environmental Studies and former Administrator of the United Nations Development Programme (UNDP) observed that “while civil society frequently enjoys participation opportunities in national and local level processes, mechanisms for meaningful stakeholder engagement at the international level, as well as knowledge about their effectiveness is lacking”. Carlos Lopes, Executive Director of UNITAR, emphasised that although democratic participation in environmental governance has become an internationally

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agreed principle, “it is the socio-economic context and local capacities which essentially determine how civic participation can effectively contribute to good governance and environmental sustainability”. Daniel Esty, Director of the Yale Center for Environmental Law and Policy, highlighted that public participation can foster transparency, accountability and sound environmental outcomes, citing pollution reduction along the Mexican-American border as a case in point. He also encouraged participants to identify best practices. Susan Rose-Ackerman, Henry R. Luce Professor of Law and Political Science, Yale Law School, discussed the diverse nature of national administrative cultures and the challenge this creates for conducting comparative research on the democracy-environment interface. In a subsequent plenary session, two panel discussions provided introductory perspectives of academic scholars and government officials, respectively.

Conference discussion mainly took place in working groups, which considered papers on two topics: i) public participation at different levels of the governance hierarchy, including: international, national, regional, local and corporate environmental governance, as well as interdependencies across levels of governance; and ii) the democracy-environment interface, including democratisation of knowledge generation, democratising institutions (i.e., regularising participatory procedures), access to justice, and public interest mobilisation and capacity. Papers, presentations and working group outcomes can be accessed through the UNITAR/Yale Conference website.

Institutions and Participatory Governance
As implied in its subtitle (institutions, public participation and environmental sustainability) – and consistent with theory developed through the “new institutionalism” in political science – the Conference emphasised the role institutions play in shaping public participation and policy outcomes. Institutions are, according to Peter Hall and Rosemary Taylor, “formal or informal procedures, routines, norms and conventions embedded within the organizational structure of the polity or political economy”. By regularising rules of engagement (e.g., through standard operating procedures), institutions stabilise behaviour and interaction of agents, create predictability, and help avoid conflict. Douglas North explains that institutions provide “the rules of the game in a society or, more generally … the humanly devised constraints that shape human interaction.”

Institutions may, by providing a source of constraint, reward or punishment, become structures of power and affect how authority is constituted, exercised, controlled and redistributed. They sometimes control which voices get heard by recognising and empowering certain actors and excluding others. Or, by defining “vocabulary” and the legitimacy of arguments, criticism or justification, institutions can define whose claims of justice are valid within a decision process.

Institutions do not appear magically. Elizabeth Garret argues that groups seek procedures and rules that advance their preferences and aim to produce procedures that place opponents at a disadvantage. John Ferejohn observes that a significant part of political contestation is concerned with preserving or altering institutions to achieve political goals. He concludes that the valuable resources and efforts extended in battles about institutions and procedures suggest that indeed “something valuable must be at stake in them”. Institutional inquiries thus do not question the role of actors as important determinants of the policy process. Rather, they seek to investigate to what extent institutions shape or constrain actor behaviour and thereby generate different policy outcomes than would be expected in their absence.

The “Unknowns” of Participatory Environmental Institutions
Despite a growing body of research on participatory environmental governance, the Conference revealed significant knowledge gaps concerning how and under what conditions participatory institutions can foster environmental sustainability. Scholars with long-standing academic credentials disagreed, for example, if, or to what extent, public participation in local forestry management advances or impedes forest protection objectives. Concern was raised that such conflicting messages may create confusing and inconsistent messages for policy makers, who often consider the advice of scholars.

Unresolved questions concerning the democracy-environment interface identified through, and discussed at, the Conference include:

- Does public participation correlate with and promote environmental sustainability? If so, why, how and under what conditions? Vice versa, can public participation hinder environmental performance?
- How do institutional rules of the game affect the inclusiveness of participation and recognition of diverse forms of knowledge?
- What is an “optimal” level of public participation from an efficiency perspective and how can such an optimum be determined?
- Are there “best practices” for public involvement from an environmental sustainability perspective?
- To what extent are the capacities of civil society organisations sufficient to ensure consistent, equal and effective public participation?
- How do the above questions play out at various levels of environmental governance and in the context of emerging and consolidating democracies?

Understanding Public Participation: The Need for Taxonomy
The Conference revealed that comparative research on participatory environmental governance is constrained by a lack of common taxonomy, vocabulary and indicators how to “measure” variations in participatory processes. The ambiguity of the “public participation” concept was already hinted at by Douglas Yates some 25 years ago when he asked: Does participation mean that citizens are heard, or heard and listened to, or heard, listened to, and as a result, given their way? Does the test of participation lie in improved procedures for decision-making or in improved results of decisions? Is it possible to
have improved procedures without improved results? Further, who is to participate? How widespread must participation be? What is the nature of the participatory decisions? Is it enough that most minor decisions are participated in, or must citizen participation extend to some major issues? Who decides what issues are minor and major? An apparently simple idea unpacks into a number of more subtle questions.

Insights derived from public participation theory can enrich an institutional inquiry by investigating how micro-variations of the “rules of the game” affect stakeholder participation and, through this, decision outcomes. Variations in participatory process design may, for example, shape the inclusiveness of a process, the selected mode of communicative interaction (e.g., adversarial vs. deliberative interaction), or the degree to which a public authority is willing to delegate its decision-making authority.22

At the Conference, some authors referred to, or introduced proposals on how the democratic nature of a public participation process could be classified.23 Taking these proposals, as well as relevant theoretical literature into account, participants recommended a more in-depth follow-up effort (e.g., an expert symposium) to take stock of current classification of public participation and explore development of a harmonised taxonomy for research. Similarly, participants identified a need for developing better indicators to measure environmental sustainability and decision outcomes, the dependent variable of the democracy-environment inquiry.

Conference Follow-up

The Conference confirmed that research on the democracy-environment interface takes place through diverse academic disciplines, creating challenges for systematic research, networking and knowledge sharing. A dedicated journal on the democracy-environment interface does, for example, not exist. Similarly, regular interaction between the academic community and government officials involved in designing and implementing public participation processes is lacking and should, according to participants, be strengthened. While the Conference addressed these challenges, it was, however, only able to scratch the surface in resolving open issues.24

As an immediate follow-up, UNITAR and Yale organised a side event at CSD-16 on 13 May 2008, attended by more than 100 delegates, to present the conference results at the UN in New York. In the medium term, UNITAR and Yale, together with partners, are exploring the possibility, as suggested at the Conference, of holding the event as a regular, biennial international event. During the inter-sessional period, participants of the informal network catalysed through the Conference are initiating, individually or jointly, follow-up activities on specific issues identified, but not resolved during the discussions. Proposals for inter-sectional activities proposed at the Conference include, for example:

- Development of a common taxonomy to facilitate public participation research across countries, levels of governance and thematic areas;
- Development of a structured research agenda and global research programme on democracy and environment;
- Thematic research on specific areas of the democracy and environmental interface, e.g., in the area of climate change, toxic chemicals and biodiversity protection;
- Research targeting specific levels of environmental governance, i.e., how do variations of stakeholder engagement in international environmental governance affect policy outcomes;
- Research on stakeholder engagement in multi-level environmental governance challenges;
- Examining the interface of public participation and environmental justice;
- Development of a knowledge-management platform to share international research and knowledge on the democracy/environment interface, including discussion groups and sharing of best practices;
- Initiating a dedicated journal on democracy and environment.

In December 2008, UNITAR and Yale are taking stock of activities initiated as a follow-up to the Conference. Relevant information will be placed on the Conference website in early 2009.

Implications for Policy Making

The concept of participatory environmental governance is enjoying growing support around the world. National, sub-national and local governments continue to embed public participation requirements within their respective environmental governance schemes.25 At the international level, the United Nations Environment Programme (UNEP) has initiated the preparation of global guidelines to support national legislative frameworks to implement Principle 10 of the Rio Declaration.26 Yet, it is becoming apparent that public participation means “different things to different people” and a certain type of engagement process may favour (and legitimise) interests seeking to maintain the status quo, rather than environmental transformation and justice.

Thus generally phrased participation rights do not seem to systematically foster environmental transformation and sustainability, unless certain conditions are met. This assessment has policy implications. It suggests that participatory institutions (e.g., procedural policies and legislation) need to be crafted with sufficient precision, and be coupled with capacity development activities, in order to ensure that environmental sustainability goals are achieved, via participatory governance. As succinctly put by Yale Professor Benjamin Cashore in his concluding remarks to the Conference, the fundamental question for future research, institutional reform, and capacity development is not so much “whether or not democracy is good for the environment, but rather how participatory institutions at all levels can be designed to effectively address the environmental crisis facing our planet”.

Notes

1 The event was organised through the UNITAR/Yale Environment and Democracy Initiative, launched in March 2007 by UNITAR and the Yale School
of Forestry and Environmental Studies. The initiative is executed jointly through the UNITAR Environmental Governance Programme and the Yale Center for Environment Law and Policy, a collaboration of the Yale School of Forestry and Environmental Studies and Yale Law School. Partners of UNITAR and Yale University in the Conference included the UN Economic Commission for Europe (UNECE), the University of Cape Town, the French Institute of Forestry, Agricultural and Environmental Engineering (ENGREF-AgroParisTech), the World Resources Institute (WRI), and the Stakeholder Forum for a Sustainable Future. Financial support for the Conference was provided by the Edward J. and Dorothy Clarke Kempf Fund of the MacMillan Center at Yale, the Oscar M. Ruebhausen Resources Institute (WRI), and the Stakeholder Forum for a Sustainable Future.

Environment Law and Policy, a collaboration of the Yale School of Forestry and Environmental Studies, Yale University Press, at 3.


3 Examples of multi-stakeholder processes catalysed through these international processes include, for example, the development of National Strategies for Sustainable Development, National Capacity Self-Assessments (NCSAs) for implementation of the three Rio Conventions, Global Environment Facility (GEF) Country Dialogues, and Local Agenda 21 processes.

4 For a contribution from the perspective of the UNECE Aarhus Convention Secretariat, see conference paper of Jeremy Wates. For a case study on the implementation of the Aarhus Convention see conference paper of Amy Forster Rothbart.

5 The UN Global Compact promotes, for example, new forms of good governance by corporations, which include multi-stakeholder dialogue and collaboration.

6 Conference papers on international environmental governance were presented by Eric Dannenmeier, Osvaldo Álvarez Pérez, Tatjana Rosen and Donald K. Anton; on national environmental governance by Georg Winkel and Metodi Sotirov, Guy Salmon et al., Amando Tolentino and Amy Forster; on sub-national environmental governance by Debra Emmelman et al., Sigrid Vascónez, Alfred Marcus and Adam Fremeth, and Noela Eddington and Ian Eddington; on local environmental governance by Wilson Akpan, Hua Wang, Daniel Sherman and Marc Hufy et al.; on corporate environmental governance by Frank de Hond, Robert Repetto, Carmit Lubanov and Harris Oleckman; and on interdependencies across levels of governance by Sonja Walti, James Kho, Patricia Cavanaugh, and Alessandro Bonifazi and Carmelo M. Torre.

7 Conference papers on democratising institutions were presented by Stuart White, Ralph Hallo, Suparek Janprasat and Vanessa Schweizer; on democratising knowledge generation by Douglas Kysar, Sofia de Abreu, Remi Chandran et al. and Edwin Camp; on public interest mobilisation and capacity by Olya Melen, Araya Asfaw and Kenneth Kakaru; and on access to justice by Louis Kotze, Juan Martin Carbollo, Vasiliki Karageorgou and Meredith Wright. For conference case study papers presented by Olya Melen, Araya Asfaw and Kenneth Kakaru.


14 See Ferejohn, supra note 12.


16 For a contribution to this topic see conference presentations by Rafael Reuveny and Daniel Fiorino and conference papers of Ngeta Karibi, Georg Winkel and Metodi Sotirov, and Marc Hufy. For a discussion concerning the human rights-environment interface see conference paper of Henry MacDonald.

17 For an introduction to the topic of democracy and knowledge generation see the Conference paper presented by Douglas Kysar.

18 For a contribution to this topic see conference paper of Franz-Xaver Perrez.

19 For a contribution to this topic see conference presentation of Elenita C. Dan and Conference case study papers presented by Olya Melen, Araya Asfaw and Kenneth Kakaru.

20 For a contribution summarising lessons learned in South Africa, see conference paper of Blessing Manale.


23 For a contribution to this topic see conference papers presented by Eric Dannenmeier and Stuart White.

24 For a contribution focusing on public participation research challenges see conference paper presented by Laurent Mermet.

25 For an analysis of developments in Asia see conference paper of Amando Tolentino.


Considering the Impact of the Global Financial Crisis on the Environment

In the face of current global concerns, global meetings focusing on economic issues appear, perhaps understandably, to be proliferating, with a large number of economic institutions holding meetings, and several ad hoc meetings of international ministers in the news. It may have been predictable that, where the environmental agendas of these bodies once appeared to be taking on a higher profile, they now appear to be waning, as matters of banking, money availability, bail-outs and global investment practices have moved to centre stage. Most important, it is also probably predictable, that among all conservation/environmental concerns, climate change – the environmental issue that is most closely linked to globalisation and commercial coordination – has managed to retain a relatively high-profile position in the agendas of the global instruments most directly related to the environment. This article briefly reports a few of the recent financial meetings which demonstrate this development.

Among recent meetings, the Ministers of Finance from the countries that comprise the Intergovernmental Group of Twenty-Four on International Monetary Affairs and Development held their eightieth meeting on October 10, 2008 in Washington, DC. This meeting of 24 key finance ministers from Africa, Asia and Latin America was chaired...
by Jean-Claude Masangu Mulongo, Governor of the Central Bank of the Democratic Republic of Congo, with Adib Mayaleh, of the Central Bank of Syria, and Ambassador Marcos Galvão, Secretary of International Affairs, Minister of Finance of Brazil, serving as vice-chairs. In that meeting, the Ministers noted that, while energy and commodity prices are down from their all-time highs, they are likely to remain high by historical standards.1

The Group of 24 meeting also underscored the two environmental issues that are perceived to most directly link climate/environment issues to the current financial crisis: food and energy, including biofuels, subsidies, import mandates and tariffs, and a variety of speculative activities and increased production costs that have boosted food prices. In particular, the Group focused on the linkage of higher food and fuel prices to the balance of payments, budgets and domestic prices of developing countries, especially the poor. The meeting highlighted the urgency of a successful pro-development conclusion of the Doha Round, and the need for developed countries to grant prompt assistance to developing countries and especially to eliminate subsidies and trade barriers, including on biofuels, that are perceived to hurt the agricultural sector and the poor in developing countries.

Beyond this, the final communiqué of the meeting “recognized that climate change is a global challenge that requires the widest possible cooperation amongst all countries to reach an effective and appropriate international response, based on common but differentiated responsibilities and respective capabilities”, welcoming the adoption of the Strategic Framework on Development and Climate Change, and urging the World Bank Group to give special attention to adaptation to climate variability, mobilising incremental resources, and financing stand-alone adaptation projects.

The Group of 24 meeting was intended to lead into the IMF/World Bank annual meetings, which provide another example of how key environmental issues are faring in global economic talks this year. There also, in the midst of intensive focus on the current economic crisis and other challenges posed by higher food and fuel prices, attention to the environment was generally focused on “supporting the World Bank’s stronger role in helping countries deal with the causes and effects of climate change, as well as the recent launch of the new Climate Investment Funds”. In particular, the Clean Technology Fund and a Strategic Climate Fund were emphasised.2 The discussions increasingly focus on “country-led development processes”, holistic approaches, and the need to “customize support to climate change adaptation and mitigation efforts, as well as capacity-building needs, in its member countries”. The results of the annual meetings included statements encouraging the World Bank to “strengthen its resource mobilization efforts, including facilitating access to additional concessional financing, ensuring complementarity with other financing mechanisms (notably the Global Environment Facility and the Adaptation Fund), supporting the development of market-based financing mechanisms, leveraging private sector resources, and seizing opportunities for innovation”.

Another potentially important indicator in the WB and IMF meetings was the increased level of attention given to mobilising resources for adaptation to climate change – an issue that is sometimes thought to reflect the view that such change cannot be avoided, but must become integrated into long and medium-range planning, development, technologies, R&D and technology transfer.

Finally, and most recently, the recent meeting of the GEF council,3 and related GEF work, while not focused exclusively on climate matters have included some detailed development in that area. While the GEF’s focus is both broad and deep across the range of environmental issues for which it was authorised, it has included strong work on climate issues, including the development of a “Result-Based Management Framework for Projects Submitted under the Least Developed Climate Change Fund (LDCF) and the Special Climate Change Fund (SCCF)” and the issue of technology transfer under the Special Climate Change Fund. The former is designed to outline the conceptual and methodological building blocks of how the Secretariat intends to measure progress toward results for the LDCF and the SCCF and other adaptation programmes, which are designed to draw upon the framework developed for the GEF Trust Fund, but tailored to adaptation mandates of the Climate Change issue. The purpose of their discussion within the GEF has been to set a management framework incorporating monitoring and reporting at three levels: the programme level; the funding level and the project level.4

Global financial bodies and summits offer a very important pathway to environmental protection and remediation, and a critical link between those objectives and the financial operations that make such measures possible, and increasingly are called to undertake them. Hence, an important idea that draws together the current spate of economic meetings and the environment may be best summarised in IMF President Zoellick’s call for “a new multilateralism that goes beyond the traditional focus on finance and trade to encompass the pressing global challenges of development, energy and climate change”. The G-24, in particular has stressed such multilateralism for many years, recognising its dependence on broader and more relevant consultation between developed and developing countries and more balanced governance structures at both the international and national levels. As financial issues become more problematic, and more basic needs such as food and energy are increasingly stressed, the interlinkage of financial, environmental and social issues must be integrated into the planning and priorities of the environmental sector. (TRY)

Notes
2 These matters were discussed in a Joint WB/IMF Communiqué, found at http://siteresources.worldbank.org/DEVCOMMINT/NewsAndEvents/21937474/-/FinalCommunique101208.pdf.
4 LCDF and SCCF documents are based on the work of the LCDF/SCCF Council, and can be found at http://www.gefweb.org/interior_right.aspx?id=18072.