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The sustainability challenge

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The Sustainability Challenge (pre-proof version)

The Sustainability Transition

The global sustainability challenge facing us is simply stated: it combines an empirical assessment and a normative claim. The evidence-based assessment, as shared by numerous scientists, is that current society-nature interactions are not sustainable – they are negatively affecting both vital ecological systems and human welfare in ways that threaten irreversible, long-term damage (UNEP 2007). Attached to this empirical claim is the normative position of sustainable development; that societal development paths should meet fundamental human needs, within and between generations, while maintaining the planet's life-support system and conserving living resources.

Of course, the most well known vision of sustainable development has been the one promoted within the United Nations (UN), from the Brundtland Commission to the 1992 Rio Conference and the 2002 Johannesburg Summit on Sustainable Development. It is broadly a social democratic understanding, which states that a durable commitment to poverty eradication, delivered through inclusive governance structures and more equitable economic growth, must run alongside measures to reverse the continuing degradation of the global environment. In other words, that which is to be 'sustained' is human development for all alongside necessary ecosystem services.

This commitment to sustainable development was revitalized at the 2005 World Summit, held at the UN Headquarters in New York. Managing and protecting a common environment was seen as necessary to delivering those UN Millennium Development Goals (MDGs) targeting the poorest and most vulnerable, including efforts to halve, by 2015, the proportion of the world's population living on less than $1 a day and the proportion lacking access to safe drinking water or proper sanitation. World leaders at the World Summit also recognized that the core objectives of sustainable development must include addressing the serious, long-term global challenge of climate change. Here the international community reaffirmed the ultimate objective of the UN Framework Convention on Climate Change to stabilize greenhouse gas concentrations in the atmosphere at a level that prevents dangerous anthropogenic interference with the climate system.

Notwithstanding the shared commitments of the World Summit, by the end of the decade the sustainable development paradigm was in trouble: the 2009 Copenhagen Accord signalled divergent opinions between states (especially between the global Northern and Southern countries) about how to tackle dangerous climate change, while progress towards the MDGs had slowed or even reversed as a result of the global economic crisis (UN 2009). Moreover, the Doha Development Agenda being negotiated at the World Trade Organization had stalled. The international community continued to acknowledge sustainable development as a common goal, but deep political differences between developed and developing countries were eroding the potential for renewed multilateral cooperation.

General recognition of the global sustainability challenge thus masks significant disagreements about the means of addressing it effectively. The UN formulation of

sustainable development attempts to circumvent this lack of agreement by promoting diverse modalities of action for sustainability, pulling in multiple actors and decision-making processes, such as the use of voluntary partnerships between public and private actors. And this plurality of governance forms is more than a political adaptation to an international arena where consensus on rule making for sustainable development is proving elusive. It also reveals a wish to embed sustainability beliefs in the daily economic and social practices of peoples around the world.

This governance response still leaves the UN framework of sustainable development with the problem of how to reconcile ecological and social sustainability with the unsustainable structures and trends of current patterns of economic growth. Under the UN model, it has been assumed that market-led growth can deliver human development goals without major structural changes in production and consumption patterns. Yet, as the challenge of climate change has made obvious, without political and regulatory checks market-led actors seem compelled to externalize social and environmental costs (Stern 2009). This chapter outlines a view that the necessary conditions for an effective transition to sustainability must therefore be comprehensive, encompassing far-reaching changes in economic-technological, regulatory and democratic choices. A central claim is that sustainability proponents can no longer avoid facing the transformative political character of this transition – one that is compatible neither with free market ideologies (e.g. Anglo-American neoliberalism) nor illiberal alternatives (e.g. religious fundamentalist regimes and movements).

Economic and technological conditions for sustainability

Undoubtedly the greatest challenge in the transition to sustainability is the structural realignment of our dominant economic development paths away from energy- and material-intensive processes. Shaped by academic debates and policy choices in northern European countries, the most influential perspective on the economic and technological conditions conducive to sustainability is ‘ecological modernization’. This approach advocates the greening of production processes through technological innovation, offering ‘win-win’ solutions: to corporate actors from more efficient resource and energy use; to employees and communities from less pollution; and to governments from investment patterns in line with ambitious productivity and regulatory targets. Ecological modernization gains have been significant in many industrialized states, but fall short of the economic dematerialization and decarbonization gains necessary for delivering environmental sustainability.

Economic advances towards sustainability are observable in the widespread embrace of eco-efficiency by businesses; that is, strategies for creating economic value with less environmental impact. Eco-efficient corporations aim to decouple resource consumption, energy use and pollution emissions from economic activity, as well as capture productivity increases from knowledge-based innovation. As promoted by organizations such as the World Business Council for Sustainable Development, the eco-efficiency perspective has brought a growing repertoire of practical solutions for moving corporations towards sustainability. Leading corporate proponents of this approach include the Canon Group (through an extensive green procurement policy), Hyundai Electronics (by reducing chemical usage in the production of semi-conductors), and Walmart (by actively seeking to meet all energy needs from renewable sources and creating zero waste).

That such large corporations can push through eco-efficiency strategies is evidence that the business community can meet significant environmental challenges, although effective diffusion of these practices requires a supportive cross-national platform of regulatory norms and green taxation incentives. There is a concern that ecological modernization is designed to maintain the economic advantages of existing global business elites, and actually blunts a more far-reaching sustainability challenge, which would include corporate social responsibility demands. To be sure, global voluntary schemes – including the Global Reporting Initiative, the UN Global Compact and the ISO 26000 guidelines for social responsibility – demonstrate that many major corporations are willing to be subjected to public scrutiny for their economic, environmental and social performance. By 2009, for example, over 5200 businesses in 130 countries were listed by the Global Compact as having committed to its ten core principles covering human rights, labour recognition, environmental sustainability and anti-corruption (see: http://www.unglobalcompact.org). However, the Global Compact has struggled in recent years to respond to criticisms that it has not effectively scrutinized the sustainability impacts of its members. And in March 2009, in the face of the serious corporate failings that triggered the 2008-2009 global economic crisis, the Board of the Global Reporting Initiative took the unprecedented step of calling on governments to make sustainability reporting mandatory for private corporations and public bodies.

Furthermore, while such voluntary commitments to sustainability assessment of corporate performance promote relevant business engagement, they do not address the growing scale of production and consumption historically associated with the global economy. Indeed, there are grounds for anticipating that the efficiency gains arising from less intense energy and material use in economic production will, over time, be wiped out by the resource demands of increased consumption in a developing world. This so-called ‘rebound effect’ highlights why the ecological restructuring of production must be accompanied by efforts to rein back overconsumption in affluent societies (Murphy 2007). Ultimately, the sustainability transition means a far-reaching reform of economic activity, such that wealth creation drivers are tamed by shared social and ecological needs (e.g. reduction of working time, investment in public goods, community-oriented technologies).

Regulating for sustainability

Adger and Jordan (2009) have rightly stated that the crisis of unsustainability is, above all, a crisis of governance. The transition to sustainability will not be achieved without recourse to radical changes in prevailing norms and institutional forms for making collective decisions. To pretend otherwise is naively to suppose that those dominant free-market incentives favouring short-term private benefits will, without regulatory steering, somehow register vital environmental and social interests. Or that those groups profiting from unsustainable resource use, whether legally or illegally, could be persuaded to forfeit their material gains for the good of more vulnerable communities or future generations. Neither scenario is realistic: the challenge to regulate for sustainability is thus formidable. It necessitates the introduction of creative and flexible regulatory practices that are problem-led, rather than anchored in fixed organizational or ideological structures. These regulatory forms are best thought of as networks: they protect and promote sustainability at multiple scales, bringing actors together in new configurations of mutual learning and collective control.

Some recent trends in environmental policy making within industrialized countries offer a sense of the types of regulatory networks likely to be both effective and democratically

legitimate in any sustainability transition. Their starting point is the acknowledgement that government command and control regulation in pursuit of public interest goals is often, by itself, not sufficient to compel durable changes in behaviour. Rather, direct state intervention is more likely to be effective when used strategically and selectively: the pivotal role of government is to facilitate the creation of regulatory networks which recruit affected parties to shape and participate in sustainability rule-making and enforcement.

Regulation, broadly defined, would be guided by overriding principles of sustainability (intra- and intergenerational justice, prevention of social and ecological harm), but in practice would draw pragmatically on a wider range of policy tools than traditional standard setting: these could include economic instruments (e.g. tradable pollution credits, taxes or fixed charges), voluntary undertakings (e.g. corporate codes of conduct) and communicative approaches (e.g. community right-to-know provisions, product certification). Above all, it would be problem-based regulation insofar as appropriate combinations of policy tools are tailored to specific contexts. The regulatory developments necessary to meet the complex demands of the sustainability transition will thus require policy experimentation and learning, and the participation of multiple actors.

A fundamental shift in regulatory emphasis is called for to secure this transition – a move away from reactive, incremental policy making towards anticipatory, integrated approaches. For example, the focus of strategic environmental assessment on avoiding negative ecological impacts forecast to arise from policies, plans and programmes indicates the preventative intent that, when extended also to social and economic effects, constitutes the scope of sustainability assessment systems. The effective translation of sustainability commitments into practical assessment criteria and techniques is by no means easy (Gibson et al. 2005). Assessment in support of sustainability decision-making must combine the rigorous analysis of natural and social scientific data with an openness to real world problem-solving.

Some of the more promising methods of sustainability assessment share a preoccupation with stakeholder participation in sustainability modelling and evaluation, in order to facilitate an inclusive dialogue on possible futures: this is designed both to incorporate information on what people want to be sustained and also, through a common ownership of the decision-making process, to boost incentives for behavioural change. Leading examples include the CSA (Community Sustainability Assessment) model (http://gen.ecovillage.org/activities/csa/English/) and the European MATISSE (Methods and Tools for Integrated Sustainability Assessments) framework (http://www.matisse-project.net/projectcomm/index.php?id=67). Both approaches have been developed with a view to enabling citizens to learn about the social and environmental consequences of multiple future scenarios. Nevertheless, such sustainability assessments remain the exception rather then the rule in governance processes.

Democratizing sustainability

The full political implications of the sustainability transition have yet to be grasped. Inherent to the conception of sustainable development championed by the UN is a commitment to intra- and intergenerational justice, which highlights the inequities of current resource allocation patterns around the globe. It is clear that ensuring an equal opportunity for all to satisfy their basic needs is not possible without a significant redistribution of resources from affluent groups to the world's poor. Of course, the principle of equal opportunity also implies that individuals should not systematically be made

socially vulnerable or exposed to human induced environmental hazards. In considering possible civic-political conditions for promoting sustainability, the critical benchmark is the extent to which they empower individuals to identify and claim their sustainability entitlements as planetary citizens; that is, their equal rights to human and ecological security.

What constitutes legitimate sustainability constraints on political economic structures is by no means straightforward to specify, as much depends on particular institutional and cultural contexts. However, as most countries already grant, through the ascription of rights, moral and legal protection to the civic-political conditions under which persons can freely determine their life paths, it seems logical that this protection should be extended to sustainability constraints that relate to vital conditions of existence; for example, economic subsistence and livelihood opportunities, social welfare entitlements, clean air and water, and ecologically sustainable land use. In other words, there are convincing reasons for applying human rights norms to at least some aspects of sustainability.

The universality of human rights captures well the sustainability principle that conditions of life should be maintained that keep open the fullest range of options for the future, while meeting fairly the needs of everyone in the present; that is, political and economic development paths should not be making the socially marginalized or our successors worse off. Unlike civil-political rights, which are widely embedded in national constitutions and international human rights conventions, the notion that critical social and ecological conditions of existence should be recognized in this way remains controversial. It also sits uneasily with that Anglo-American market fundamentalism which perceives only individual liberty rights to be relevant to wellbeing. Nevertheless, the sustainability challenge here is for concerned citizens to build political support for domestic and international rights protection of vital conditions of life (e.g. a human right not to suffer significant harm as a result of dangerous climate change).

Beyond moves to entrench core sustainability entitlements in resource allocation decisions, there remains the less salient, but no less demanding, task of fostering a widespread socio-cultural identification with sustainable development. As Tim O'Riordan (2009) notes, governance for sustainability needs to foster conditions and incentives for civic virtue and comprehensive wellbeing. A preoccupation in policy circles with economic and regulatory reform has neglected the role of civic education and socialization in transmitting pro-sustainability values. In a highly interdependent world, a necessary political source of identification with sustainability is that those facing threats to their wellbeing from particular material transactions are able collectively to perceive these as adversely affecting their interests and therefore in need of regulation, They are able, in other words, to attribute responsibility to external actors or structures, and identify with others whose sustainability entitlements are also being eroded. Empathy with the socially excluded is key to the cultivation of values and norms in support of sustainability; as also, of course, is the consideration of the needs of future generations. What is required here is not revolutionary: it is an extension outwards of social norms already operational in all durable human cultures; for example, positive concern for the young and other vulnerable groups, mutual understanding and the expectation of secure, stable community relations.

Planetary Futures

This discussion, albeit necessarily brief, has highlighted several necessary framework conditions for a meaningful sustainability transition:

- a structural realignment of economic development objectives, combining dematerialization and eco-efficiency with socially just wealth creation;
- the effective integration of regulation for sustainability (including climate change governance) across policy sectors as well as political borders;
- the routine employment, in decision-making, of sustainability assessment informed by extensive stakeholder participation
- the ascription of rights protection to critical sustainability entitlements for all planetary citizens (e.g. economic security, social welfare provision, vital ecological conditions of existence); and
- the promotion of altruistic, ecologically enlightened social identities

The specific institutional designs in support of these conditions will be shaped by local and regional contexts: there is no simple template for change. While the global spread of democracy offers grounds for anticipating governance forms sensitive in principle to the sustainability transition, it will be still be necessary to convince key authoritarian states (e.g. China, Russia, the oil-rich Gulf states) to act in ways consistent with it. Furthermore, as evident from the charged ideological debate on climate change, political and social support for sustainability actions is far from assured even in the liberal democracies. This suggests the need for significant ongoing investments in sustainability education within and across different societies.

In its recent comprehensive appraisal of the state of the global environment, the United Nations Environment Programme (UNEP) presents four future scenarios over the next 40 years (2007, pp395-454). The ‘markets first’ scenario anticipates economic liberalization continuing as the main driver of development paths around the world, in line with the still prevalent influence of market liberalism on leading industrialized states and international economic organizations. Indeed, the ideological hold of markets-first thinking in economic governance has survived the weak regulatory responses to the 2008-2009 global financial crisis and associated recession. As UNEP acknowledges, while it is necessary to harness the innate capacity of markets for technological innovation and wealth creation, relying on markets alone is unlikely to deliver environmental and social sustainability.

Adoption of a ‘markets first’ scenario would, compared to other scenarios, significantly increase global environmental harm, including a greater risk of dangerous climate change. An alternative ‘policy first’ scenario, where key governance institutions are strengthened to address environmental and social goals, delivers greater but still modest sustainability gains. This planetary future finds resonance in existing policy commitments to ecological modernization, although no provision is made for the rebound effect already mentioned, nor for the high levels of citizen participation and identification needed to ensure a successful sustainability transition.

Indeed, as the UNEP report makes clear, to the realize the latter requires an historically unprecedented recasting of governance institutions according to sustainability criteria. The ‘sustainability first’ scenario to 2050 encompasses a full application of the framework conditions outlined in this chapter. Sustainability concerns are incorporated into governance across levels, sectors and through time. Above all, human development and environmental quality priorities, as collectively shaped by local and transnational publics, steer market forces.

The many examples of innovative environmental management practices found in this book attest to the real possibilities for advancing policies for ecological sustainability. Such

policies, if conjoined with progress in meeting the MDGs by 2015, would mark significant global progress towards environmental and social sustainability. However, they demand a level of international cooperation and civil society engagement at odds with the prevailing geopolitical climate – one that is best captured by the 'security first' scenario in the UNEP assessment. Accounting for the current influence of this paradigm is the perceived threat to the global order of religious fundamentalist movements and violent criminal networks. This scenario thus includes increasing security expenditures by states at the expense of social and environmental investments, as well as inter-state competition to secure strategic resources (notably energy supplies). In a 'security first' world, international cooperation is even more difficult as states pursue narrow self-interests, evident in the growing 'securitization' of climate change, with states preparing themselves against the imagined threats of future 'water wars' and waves of climate refugees. Sustainability advocates across the world have, as their challenge, to impress on their governments and fellow citizens the conviction that long-term global security and prosperity rests not on political and social division, but a principled multilateralism informed by shared ideas of sustainability.

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