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Climate Change, Adaptation and International Relations Theory

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MIZAN R. KHAN, APR 29 2016

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Climate change is the poster child of global diplomacy today. In fact, it can easily be regarded as the most complex global policy problem. This complexity in understanding the political economy of climate change is reflected in its temporal, spatial and conceptual dimensions. It's a stock rather than a flow pollution problem. Historical emissions from industrial countries are mixing with today's rapidly growing emissions from the developing countries. The impacts will manifest themselves fully in the decades to come, and future generations are likely to suffer the most; yet scientists already attribute the trend of increased magnitude, frequency and severity of climate disasters of recent years to climate change (IPCC 2012). The main creators of the problem are the rich industrial countries, which are likely to suffer less; while the poor, with the least contribution to the problem, will suffer the most.

The conceptual dimension of adaptation is much more complex. Climate change is global in both its cause and effect dimensions. As climate change is really a collective action problem, there is a built-in compulsion for addressing the root causes through international cooperation. The mitigation regime is not yet succeeding because of disagreements over cost or the sharing of responsibility among the parties to the United Nations Framework Convention on Climate Change (UNFCCC), but nobody questions the properties of a stable climate as a life-support 'global public good' (GPG). This has been reflected in the Durban Platform agreed at COP17 in December 2011, which stipulates that all UNFCCC parties have to accept mitigation responsibility.

Gardiner (2011: 398) aptly calls the climate change problem a 'perfect moral storm', at the base of which lies his thesis of 'theoretical ineptitude' (p. 407). In this chapter we argue that the alleged lacuna lies more in conceptualising adaptation. To do this, we turn to the main theories of International Relations, such as realism, regime theory, neoliberalism, and constructivism, to see how climate change and adaptation are viewed by these strands. In international relations, a state can take any of the three approaches: cooperation, unilateralism or inactivity. Within the realm of climate diplomacy, we witness states playing all these roles.

Realism is perhaps the most influential strand in International Relations, particularly during the Cold War, to have guided nations in their foreign policy pursuits. The central premise of this theory is that in an anarchic space with no order, nations are guided as unitary rational actors by maximising interests based on power politics. In this pursuit countries employ the mechanisms of power at their disposal to turn the deals in their favour. To realists or rational choice theorists, ethics, moral values and justice have no place in international politics and are instead viewed as 'oxymoronic expression[s]' (Franceschet, 2002; Okereke, 2010). Vanderheiden (2008) argues that realist theory, through a prism of only looking at national interests, may show concern with increasing global poverty due to the perception that this may increase security threats rather than any injustice endemic to global poverty itself. Likewise, a realist understanding might support a climate treaty with mandatory limits to greenhouse gas (GHG) emissions if national interests are better served with these than without. This might also be the case with assistance in adaptation to developing countries.

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The Copenhagen Accord, worked out by the leaders of Brazil, China, India, South Africa and the United States (US), is viewed as a return to realism, though some scholars disagree (Bernstein et al., 2010). Though the main concern of the Copenhagen Accord architects is mitigation, it contains rich references to adaptation. Two points may be mentioned: first, the urge for international cooperation for adaptation and, second, the need for a balanced allocation of the pledged amount of US\$30 billion between adaptation and mitigation. Vanderheiden (2008) further posits that the effects of climate change on other people with no spill over effect on a realist do not bother him. From this perspective, adaptation in developing countries is not a concern for rich states since it does not provide them with any direct benefit (Barrett, 2008). In contrast to this perspective, normative international political theory brings the issue of international justice into focus. Brown argues that normativism emphasises that states will act not just for self-interest but also in accordance with justice-related principles, whereby 'states receive what is their *due* or have the *right* to expect certain kinds of treatment' (Brown, 2002: 276).

Liberalism and its later version, neo-liberalism, argue that nations benefit from cooperation in an atmosphere of peace and harmony. Former US president Woodrow Wilson was a premier advocate of liberalism. Along these lines, some argue that without funding for adaptation, many vulnerable developing countries might not remain viable partners in trade and investment. Further, climate-induced migration may engender conflicts within and across regions. With this understanding, adaptation funding is viewed as inducing developing countries to go for mitigation (Buob, 2009). Self-interest dictates that industrial countries should provide funding for adaptation.

Significantly, the core elements of the UNFCCC and the Kyoto Protocol reflect the economic orthodoxy of neoliberalism, i.e. the level of acceptable GHG concentration is determined through cost-benefit analysis. To achieve this level with least cost, market mechanisms are required (Article 3.3 of the Convention, and Articles 6, 12 and 17 of the Kyoto Protocol). Adaptation concerns present a poor case to be taken care of by market-based instruments (Barrett, 2008). Driesen (2009) argues that barriers to promoting adaptation concern the free market orthodoxy under the neoliberal agenda worldwide, with markets, not governments, ruling the game – as in the way that atmospheric sink capacity has been turned into property rights through carbon trading (Newell and Paterson, 2010). More on this follows in the last section.

Regime theory argues that nation-states are the central actors in global negotiations, with civil society playing only a minor or supportive role in shaping outcomes. Regimes are defined as sets of principles, norms, rules and decision-making procedures around which actor expectations converge in a given issue area (Krasner, 1982). Young, Keohane and Nye are leading advocates of regime theory (Keohane, 1989; Nye, 1991). As climate change is a global phenomenon, regime theorists focus on mitigation rather than adaptation. The climate regime reflects this strand, though talks of increasing cooperation about adaptation are present. This is due to the mutuality of interests in mitigation. Actually, regime theory reflects the values of liberal institutionalism, which considers international institutions to be a force in global politics. For environmental problems straddling the global commons, it is difficult to draw a dichotomy, as statist model does, in policy debates between domestic and international sphere, and it is in these common issues that international organisations play an active role. For this reason, Rosenau (1997) challenged the statist model in his work on global governance. This is true particularly in climate change diplomacy, as the UNFCCC Secretariat, the United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP), the World Bank and some other bodies play very important roles in articulating and setting the agenda for discussion.

In their book, Bulkeley and Newell (2010) present a critique of this power-based regime theory. According to them, regimes are formed and dominated by a hegemon. Unlike power-based accounts, functionalists of interest-based approaches to regimes are concerned with how different institutional designs shape and affect the behaviour of nations. Along these lines, a political economy critique states that these institutions, with the agenda of promoting neo-liberal market philosophy, help capital formation and perpetuate the existing order. Tanner and Allouche (2011) argue that within a liberal-market system, climate change is seen as a challenge that threatens to derail progress in poverty reduction and the dominant mode of capitalist development. Newell and Paterson (1998) argue that, as a result of corporate power, international capital's response to climate change is weak.

Compared to regime theory's 'high politics' approach to international relations, political ecology brings in the 'low

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politics' issues of global politics, such as inequality, poverty, structural weaknesses and the ethical and justice dimensions, including compensation for damages around which the climate change debate is centred (Jamieson, 2001; Adger et al., 2006; Roberts and Parks, 2007; Okereke, 2008; Abdullah et al., 2009). Saurin (2001) argues that non-recognition of political ecology considerations in climate change is hardly surprising and this is reflected in ignoring scholars writing about social, political and economic conditions because they are largely unconcerned with the state system. Thus, political ecology is viewed as presenting an alternative to conventional analyses of the climate regime by its way of explaining economic rationality through social and environmental lenses (Glover, 2006). It is concerned more with the implications of Convention outcomes for ecological justice among present and future generations and for non-human life, and also with applying the 'Commons' concept to the global atmosphere (Agarwal and Narain, 1991; Shue 1992, 1999; Byrne 1997; Volger, 1995; Brown 2002). Singer (2004) argues that national boundaries, in their traditional conceptualisations, are rendered obsolete by global environmental problems such as climate change.

Constructivism finds its origins in a challenge to positivism that focuses on the epistemological perspective – i.e. that the nature of scientific knowledge is 'constructed' by the scientists (Kincheloe, 2005). While the physical sciences employ descriptive paradigms with quantitative tools, social science research is often conducted within an interpretive paradigm, which focuses on the meaning people ascribe to various aspects of their lives based on cultural values (Rayner and Malone, 1998). As Kuhn (1970) stated, what a man observes depends upon what his previous visual-conceptual experience has taught him to see. So, this method argues that reality is subjective and that 'truth' is therefore a construction reflecting our own experiences – historical, cultural and experiential. And this interpretation is not static but dynamic, evolving over time as a result of interactions with other peoples and entities.

In International Relations, constructivists emphasise a shift away from rationalist and interest-based accounts to factor in the role of knowledge, norms and values in shaping positions adopted by nation-states; and see cooperation among nations as guided not just by material and power factors but also by discursive power and ideational elements (Haas et al., 1993; Okereke, 2010). As evidence of discursive power in inter-state relations, Cox (1981) argues that the US rise to and reproduction of global dominance in the 20th century was due to its blending of material and discursive power. The constructivist accounts point to their position by indicating at the intergovernmental panel on climate change (IPCC) epistemic communities, which continue to shaping the climate agenda, with their periodic scientific assessments. Constructivist scholars focus more on the discursive and intersubjective procedures by which international governance develops (Ruggie, 1998).

Somewhat similar, but another strand by name, **cosmopolitanism** calls for a global order based on justice, human rights and international law (Held, 2009); one in which non-state actors play an increasingly important role. This school argues that, due to globalisation, human beings are bound together and that the vital basic needs of global communities should be prioritised over trivial ones (Shue, 1992; 1999). Under the formulations of constructivism, it can be argued that since adaptation has not been defined or conceptualised in a coherent manner in the climate regime, there is an active process of knowledge-building in adaptation science and policy design, as well as implementation. Along this line of new norm setting and strengthening, adaptation is argued to be a global public good (GPG).

New norm of adaptation as a global public good

The nature of the global public good entails two basic properties: non-excludability and non-rivalness. The former denotes that nobody can be excluded from using a resource, while the latter says that use by one person or one country will not reduce the quantity or quality of a resource for another. It is worth noting that nothing is inherently excludable – policies or social institutions are required to make any good or service excludable. On the other hand, some goods/services are inherently non-excludable as a physical characteristic (Karlsson-Vinkhuyzen et al., 2012). One example is climate regulation. It is also important to note that rivalness is a physical characteristic of a good or service and is not affected by human institutions.

However, climate stability or atmospheric sink capacity may be better conceptualised as a common pool resource (CPR), which is rivalrous; many environmental resources including atmospheric sink capacity can more accurately

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be described as CPR (Barkin and Shambaugh, 1999). This rivalness is a source of power for those in negotiations and unwilling to replenish the CPR (DeSombre, 2000). From the moment anthropogenic climate change and its negative impacts were first detected by scientists, the atmospheric sink could no longer be regarded as a pure public good because it remains non-excludable. Hence, it can be regarded as a 'congestible public good'. Or better, it can be termed as a global commons, with a finite capacity to absorb atmospheric pollution. The IPCC and other studies, including the US National Assessment, have persistently been trying to convey this message to the world community (IPCC, 2012). So climate change is rightly regarded as the classic case of Hardin's 'Tragedy of the Commons' (1968), while Stern calls it the greatest market failure of our time (2007). The latter happens when the market does not factor in the externality cost and imposes it on society. From the perspective of the prisoner's dilemma, the collective good of potential cooperation, compared to the collective bad, usually makes cooperation possible (DeSombre, 2000); however, the mainstream conceptualisation of adaptation has continued, largely narrow interest- and discipline-based.

Even within the traditional paradigm of thinking, funding for adaptation can bring in direct or indirect global benefits, such as better monitoring and prediction of climate change, improved modelling of climate impacts, research and development (R&D) to improve drought and flood-resistant crops, etc. Also adaptation measures may prevent climate-induced displacement, regarded as an indirect global benefit (Pickering and Rubbelke, 2014).

Accordingly, a number of scholars have started theorising the normative aspects of allocating funds for adaptation from multilateral sources (Paavola and Adger, 2005). Others are looking at adaptation funding as a way to induce the development of mitigation strategies (Buob, 2009). A few studies have discussed the use of vulnerability indices for countries as a basis for distributing climate funds (Klein, 2010). Other studies have started exploring various metrics for comparing the effectiveness of climate change adaptation projects (Stadelmann et al., 2011). Some others have started talking about the emergence of a global governance of adaptation (Otterstrom and Stripple, 2012). However, none of these initiatives attempt to conceptualise climate impacts in terms of failed mitigation as a global public bad (GPB), so taking care of the consequences through adaptation as a GPG. Vanderheiden's idea of adaptation appears expansive, tending to plug the conceptual gap a little: 'Adaptation intervenes in the causal chain between climate change and human harm, allowing the former but preventing the latter, but when this is not possible, a third category of *compensation* costs must be assigned in order to remedy failed mitigation and adaptation efforts [...] so adaptation shall be understood to include prevention of harm as well as *ex post* compensation to it' (2011: 65).

Together, the works of Kaul et al. (1999; 2003) on GPGs under the UNDP banner are important in terms of their new and expanded interpretations. With the onset of globalisation, they bring in both goods and bads (i.e. enhanced economic growth and trade, and widening disparity and growing negative externalities). They argue that a new understanding of a global public good that is different from the conventional national public goods under neoclassical interpretations is needed. The UNDP proposed a broader definition, integrating three elements, called the triangle of publicness: a) publicness in consumption, b) publicness in distribution of benefits, and c) publicness of decision-making. Kaul (2013: 133) defines GPGs as 'goods whose benefits or costs are of nearly universal reach or which potentially affect anyone anywhere. Together with regional public goods they constitute the category of transnational public goods'. Kaul et al. (1999) classified various types of GPG into three groups: a) global natural commons, such as high seas and the atmosphere, b) global human-made commons, such as global networks, knowledge and international regimes, and c) global policy outcomes and conditions, such as peace, security and financial stability.

Sweden and France are regarded as pioneers in embracing the GPG approach (Kaul et al., 1999), and these two countries established an international task force on GPGs in early 2003. This group (International Task Force on Global Public Goods, 2006) defined GPGs as issues that are considered important to the global community, which cannot be provided by individual countries acting alone, and which must be addressed collectively by both developed and developing countries. Along these lines, this task force, together with others, identified tackling climate change as a GPG and included strategies, such as strengthening adaptive and supporting capacity-building in developing countries. The World Bank commissioned a study of its own, looking at its role in the provision of GPGs (Evans and Davies, 2015). This broadened concept of GPG was based on the fusion of several theoretical strands: a) the theory of public goods, as understood in economics, 2) the theory of market failure, in terms of positive and negative externalities, c) the theory of basic needs, to justify the notion of free access to resources, and d) elements

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of political economy, to define collective actions and collective goods (Kaul et al., 2003: 185). However, such an expanded interpretation of GPGs has its critics at both academic and policy level. For example, Long and Woolley (2009) argue that the UN interpretation of GPGs is rhetorically effective but poorly defined, lacking conceptual clarity and with too many abstractions. Furthermore, they argue that the 'concept gives a simple rationale for the activities of those associated with UN agencies [...] to fit the exigencies of international public policy rather than explanatory theory' (Long and Woolly, 2009: 118). At the policy level, there are both GPG supporters, such as the European Union (EU) countries, and opponents, like Japan and the US. The central issues that differentiate them are the interrogations of additionality of financial resources, over and above foreign aid. Developing countries feared the diversion of official development assistance (ODA) to GPG provision (without additionality) (Carbone, 2007).

However, this thinking is no longer justifiable in an era of growing commons problems accompanied by rapid and uneven globalisation. The traditional understanding of GPGs as national and territorial is called into question by this new crop of extraterritorial problems. Cross-border externality problems now represent a group of GPBs, warranting their collective internalisation into national and global policy processes. Even the widening disparity and concentration of poverty in the middle-income countries is now viewed by some as a GPB, meriting a collective solution. In the case of climate impacts and adaptation, the critiques can be refuted in a number of ways: first, a deeper analysis will reveal that adaptation benefits extend from the national to the global level, both directly and indirectly (Table 1, below), and ambitious mitigation strategies bring in adaptation benefits in the form of avoided loss and damage. But this is not taking place. Vanderheiden argues that adaptation must include both the prevention of harm and *ex post* compensation for unavoidable loss and damage. Moreover, norms such as human rights, the right to development and the no-harm rule are globally recognised and regarded as a new class of GPGs. Obviously, both mitigation and adaptation appear as important GPGs to ensure the realisation of related norms. Volger (1995) talks of the shared vulnerability or global fate interdependence that climate change has engendered. Instead of exercising the centuries-old Westphalian, realism-based concept of sovereignty, a new type – what Kaul (2013) calls smart or pooled sovereignty – is warranted for addressing this new type of transnational problem. Finally, let us have a look at the multidimensional and multilevel benefits of adaptation. The table below shows the types of benefits, with examples, along three dimensions: whom they accrue to (private/public), their geographic scale (local to global), and whether they are of a direct or indirect nature.

Table 1: Key types of adaptation benefits

Local private benefits	Local public benefits	Direct global public benefits	Indirect global public benefits
Value of saved crops for individual farmers; improved water storage for households.	Flood-proofed infrastructure, afforestation preventing mudslides, coastal afforestation as wind and flood breaks, water storage.	Control of climate-sensitive infectious diseases, protection of climate-sensitive biodiversity, agricultural research on flood and saline-resistant crops, improved modelling of climate impacts.	Continuance of statehoods by many small island states, avoided international migration, lower price volatility on climate-sensitive agricultural products, enhanced purchasing power among the vulnerable communities and countries.

Source: Adapted from Persson (2011) and expanded by the author.

The list thus amply manifests that adaptation, jointly with its diverse and multi-level benefits, does contribute to both direct and indirect global benefits. Central to this articulation are social constructivism and normative international political theory, which argue that questions about norms, morality and justice are not external but very much intrinsic

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to interactions between states in the 21st century (Shue, 1992; Franceschet, 2002; Okereke, 2010).

Conclusion

This chapter has reviewed the main strands of International Relations theory, such as realism, liberalism, regime theory and constructivism, in order to see how they approach global cooperation in adaptation. The review shows that all strands have elements of cooperation for adaptation, but with varied ways and perspectives. The current climate regime generally reflects a mix of neoliberalism, regime theory and institutional functionalism. However, in accordance with Einstein's argument that the solution of a problem requires rising above the level of consciousness that created it, this chapter follows evolving constructivist thinking, preparing the ground for the advent of a new norm – an expanded interpretation of GPG/GPB in an era of increasing global commons problems. Such an exercise has the potential to command a more robust political response to globalising the responsibility for addressing adaptation. Though this new norm of considering adaptation as a GPG is in its embryonic stage, it can be expected that there will be further conceptualisations by the theorists of governing global commons such as atmospheric sink capacity.

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