

After the Paris Agreement: What Role for the BRICS in Global Climate Governance?

Christian Downie 

The Australian National University

Marc Williams

University of New South Wales

Abstract

The rising power of the BRICS is now at the centre of debates about the future of global governance. Despite the consensus that the political, economic and strategic differences between the BRICS trump the commonalities, the BRICS have managed a level of cooperation that has exceeded expectations. This has led to inquiries about their influence on several policy domains, especially global finance. However, less attention has been given to the role of the BRICS in global climate governance, especially in the aftermath of the Paris climate agreement in 2015. Following the Paris Agreement, and the US' withdrawal, this paper examines the capacity of the BRICS to re-shape global climate governance. Based on an analysis of the emissions profile of the BRICS, and multilateral and bilateral meetings between BRICS countries since 2015, it argues that while significant obstacles to the BRICS acting as a coalition remain, there are areas that can be identified where cooperation could be scaled up in coming years.

Policy Implications:

- Policy makers in the BRICS need to overcome significant variations in their interests due to their differing production and consumption of oil, gas, and coal if they are to act as a coalition on climate change.
- In the aftermath of the Paris Agreement, policy makers should work to identify areas that are ripe for intra-BRICS cooperation and could be scaled up in the coming years.
- In the first instance, policy makers should focus on the areas of energy efficiency, agriculture and development finance.
- Policy makers should build bilateral relationships that could provide a basis for coordinated BRICS action. The most promising bilateral relationship appears to be between China and India.

In less than a decade the BRICS – Brazil, Russia, India, China and South Africa – have gone from a Goldman Sachs moniker to a central player in international affairs. Since 2009 the BRICS have managed a level of cooperation that has exceeded expectations, with an increasing frequency and breadth of cooperation evident in regular leader level summits, ministerial meetings and the creation of new international institutions. In this context, it is no surprise that widespread scepticism about the grouping has been replaced by scholarly inquiries into what the BRICS mean for the future of global governance. In particular, to what extent these countries with diverse economic and political structures can effectively act as a coalition to shape international outcomes across multiple policy domains. Traditionally literature on the BRICS has focused on the domain of global economic governance, especially in the aftermath of the global financial crisis in 2008 and the subsequent discussions about the need to reform the international financial architecture (Chin, 2014; Qobo and Soko, 2015; Stuenkel, 2013).

Less work has considered the role of the BRICS in global climate governance (Leal-Arcas, 2013; Brüttsch and Papa, 2013; Gladun and Ahsan, 2016; Rinaldi and Martuscelli, 2016), and few studies have examined the capacity of the BRICS to shape global climate governance in the aftermath of the 2015 Paris climate agreement (for an exception see Viola and Basso, 2016). There are two important reasons for doing so. First, the rise of the BRICS is fundamentally re-shaping the global governance challenges in the domain of climate change. The BRICS are among the largest emitters in the world due to their enormous production and consumption of fossil fuels. China, for example, is now the largest energy consumer in the world and has overtaken the US to be the largest emitter with almost 30 per cent of global greenhouse gas emissions (IEA, 2016). Second, and as a result, there are ongoing global governance challenges. For example, one point of contention in international climate change negotiations for more than a decade, including in the most recent negotiations in Paris in 2015, has been how

to bring nations such as China and India on board with meaningful emission reduction targets (Downie, 2014). And in the aftermath of the US withdrawal from the Paris Agreement, there is now growing debate about whether these nations can take on a leadership role.

Accordingly, there is a need to understand the capacity of the BRICS to re-shape global climate governance in the post-Paris environment. This paper takes up this task via an analysis of BRICS behaviour drawing on the most recent emissions and energy data, and an analysis of multilateral and bilateral cooperation between BRICS countries since Paris. We argue that the BRICS are unlikely to act as a coalition capable of re-shaping global climate governance in the near-term because the fossil fuel share of energy demand of each country presents obstacles to coordinated BRICS action. In particular, there are significant variations in their interests due to their differing production and consumption of oil, gas, and coal. Further, the projections of demand for fossil fuels and related emissions projections, indicate that each of the BRICS are likely to remain wedded to fossil fuels inhibiting their capacity to act as climate change leaders. However, we also argue that a stocktake of multilateral and bilateral meetings between the BRICS since 2015 suggest that there are areas that could be ripe for cooperation. Three areas are identified: energy efficiency, agriculture and development finance. Further, bilateral relationships between BRICS members, such as between China and India, could help to shape global climate governance agendas going forward and over time provide a basis for coordinated BRICS action.

The next section provides an introduction to the BRICS and their historical role in global climate governance. Against this backdrop, the section thereafter examines the capacity of the BRICS to act as a coalition in the post-Paris environment via an analysis of the emissions profile of the BRICS, and multilateral and bilateral meetings between the BRICS. The final section concludes with reflections on future research.

The BRICS and global climate governance

In the past decade academic analysts, political commentators, and politicians have all, in various ways, commented on the rise of new powers and the implications of this phenomenon for global governance (Duggan, 2015; Hurrell, 2006). While much of the ensuing speculation has focused on the rise of individual states such as China and India the coalition constituted by Brazil, Russia, India, China and South Africa has featured prominently in these analyses. The extent to which the collective entity known as the BRICS can effectively shape international agendas and outcomes in a number of issue-areas has been at the centre of discussions.

The consensus among scholars of the BRICS is that that the differences trump the commonalities. For example, Brüttsch and Papa (2013) argue that the BRICS do not have the consistent commonality of interests required to form a lasting coalition. Their analyses of the reform of the global

financial system, and the post-Kyoto climate negotiations lead them to conclude that coalitional failures among the BRICS countries hamper their ability to negotiate as a bloc. More generally, it has been argued that the areas of shared interest and commonality among the BRICS are quite shallow, rendering unlikely the development of any BRICS mentality. The limited zone of agreement is exacerbated by the very real rivalries and historical mistrust that exist among several of the BRICS countries (Glosny, 2010). To be sure, Russia and India have both fought wars with China, and China's support for Pakistan, and India's for Tibet, does not help relations between both countries (Luckhurst, 2013). In addition, Brazil, India, and South Africa, several of the largest democracies in the world, are politically very different from the autocracies of Russia and China.

Despite their differences, the BRICS have institutionalised their relationship and created a number of mechanisms to foster cooperation in an attempt to demonstrate that the BRICS are not simply a sub-set of emerging economies, but also a group with common interests (Stuenkel, 2013). Indeed since 2009 the BRICS have convened nine high-level summit meetings, as well as meetings of foreign ministers; finance/economic ministers; agriculture ministers; trade ministers; and more recently energy and environment ministers, which meet regularly to discuss issues of mutual interest. For example, the BRICS' foreign ministers meet in New York at the United Nations, and the economic ministers meet at the joint IMF/World Bank annual meetings. In addition, a major institutional initiative was taken at the sixth BRICS summit in July 2014 with the Agreement on the New Development Bank. This decision brought to fruition a process began at the fourth BRICS summit in 2012 when leaders made a commitment to create a development bank (BRICS, 2014). The BRICS have also created a number of second-track diplomatic activities, including collection of comparative statistical data and a forum for business leaders.

Nevertheless, in the policy domain of climate change historically the BRICS have not acted as a coalition. In the United Nations Framework Convention on Climate Change (UNFCCC) negotiations the BRICS nations, aside from Russia, have participated as members of the G77+China bloc, an umbrella grouping representing the interests of developing countries. Despite the wide-ranging diversity of its membership the G77+China group have coalesced around four shared interests. First, they all have a commitment to the principle of common but differentiated responsibility. Second, they have insisted that national economic development has to be given priority in the pursuit of sustainable economic goals. Third, these countries have been united in rejecting the imposition of any mandatory emission reduction targets. Fourth, they have campaigned for the timely disbursement of climate finance that is additional to traditional official development assistance (Hurrell and Sengupta, 2012; Jinnah, 2016; Williams, 2005).

To some extent, the historical role that the BRICS nations have played as part of the G77+China group is no surprise. After all, in 1997 when the Kyoto Protocol was signed, the BRICS nations, aside from Russia, were rightly not viewed as

major economies and their greenhouse gas emissions were not close to what they are today. For example, in 1997 the US was easily the largest emitter of greenhouse gases in the world, yet twenty years later China's emissions have almost tripled and it is now not only the largest economy in the world based on its GDP, which exceeded that of the United States in 2015, but it also produces more greenhouse gas emissions than any nation on earth (CAIT, 2017; World Bank, 2014). After China and the US, India's emissions have also risen dramatically and it now ranks third in global greenhouse gas emissions, followed by Russia, Japan and Brazil (CAIT, 2017).

Consequently, while these four members of the BRICS have remained active members of the G77+China grouping, in more recent UNFCCC negotiations they have also forged a separate climate coalition, known as BASIC – Brazil, South Africa, India and China (Hallding et al., 2011). In 2009, in the lead up to the UNFCCC negotiations in Copenhagen, which were billed as the negotiations that would agree to a treaty to replace the Kyoto Protocol when it expired in 2012, officials from Brazil, South Africa, India and China attended a preparatory meeting in November in China and agreed to a common negotiating strategy in advance of the Copenhagen conference (Happaerts and Bruyninckx, 2013). The resultant BASIC grouping was a significant intervention into the negotiating process at Copenhagen demonstrating recognition of common interests based on their rising power status (Ujvari, 2015). While the negotiations failed to produce a new legal treaty, the success of the BASIC countries in shaping the outcome of the conference emphasised their newfound status as emerging economies. The Copenhagen Accord negotiated by the BASIC countries with the United States (and against the position of the European Union) signalled that these countries were prepared to use their status as rising powers to shape the agenda of climate politics (Hurrell and Sengupta, 2012). It has also been argued that 'the dynamics of the negotiations during COP15 were beneficial for BASIC to gain an international profile, and the coalition's power was immediately established by crafting the Copenhagen Accord' (Happaerts and Bruyninckx, 2013, p. 14).

To an extent, in the years that have followed, the BASIC group has made effective interventions into global climate governance. For example, since the Copenhagen conference they have insisted on promoting the four key interests of developing countries: common but differentiated responsibility; the primacy of national economic development; rejection of mandatory emission reduction targets; and adequate climate finance while at the same time creating the basis for compromise with the developed countries (Falkner, 2016; Zhang, 2017). However, this broad agreement has not been further developed in terms of pursuing common strategies in relation to the creation of Nationally Determined Contributions (NDCs) central to the post-Paris agenda, as we will discuss in the following section (Amorim et al., 2015).

Further, the development of the BASIC coalition, as the acronym suggests, has at no point included Russia. Indeed,

Russia has adopted a stance in conflict with one of the core negotiating positions of the other four members of the coalition, by arguing that developing countries should be subject to binding emissions obligations. That said, there are signs that the BRICS are exploring the possibility of cooperation on environmental issues. One indication of the increasing salience of environmental issues for intra-BRICS cooperation was the establishment of first meeting of BRICS environment ministers in April 2015. In an attempt to foster cooperation on environmental issues, the BRICS ministers agreed in Moscow to establish a working group on the environment, which will identify and discuss the priority areas of cooperation, and explore the potential of the New Development Bank to fund environmental projects (BRICS, 2015b).

It should also be noted that individually Brazil, Russia, India, China and South Africa are all susceptible to the impacts of climate change on their economies. Thus the success of their respective national development strategies cannot be separated from climate and environmental issues. Policy makers are aware, for example, that economic growth, attendant public health issues, and social stability can be threatened by climate change. It has been argued that 'based on their accelerated economic growth and associated environmental burdens, BRICS face major challenges to maintain their rapid growth without proportionately large increases in carbon emissions' (Bodas Freitas et al., 2012, p. 118). Moreover, the strategy of intra-BRICS economic cooperation currently promoted for the group necessitates opening up 'a dialogue on climate issues in the BRICS (including Russia), given the need to bring the "New Development Bank" (the BRICS development bank) to bear on issues of climate finance, as well as their relation to the governance of international financial institutions more generally' (Amorim et al., 2015, p. 12).

In summary, the emergence of the BRICS as not only major economies, but major greenhouse gas emitters over the last two decades, has made them central to global climate discussions. Yet despite the growing institutionalisation of the BRICS, as evident in leader level summits, ministerial meetings and working groups, they have historically not acted as a coalition on climate change. Instead in the context of the UNFCCC negotiations at least, Brazil, South Africa, India and China have united to form the BASIC coalition namely, the BRICS minus Russia. Whether this will continue to be the case in aftermath of the Paris Agreement is a question to which we now turn.

The BRICS after the Paris Agreement

The Paris Agreement signed on 12 December 2015 marked a historic breakthrough in the international climate change negotiations (UNFCCC, 2015). Since the establishment of the Kyoto Protocol in 1997 and its coming into force in 2005, subsequent negotiations have failed to agree to a successor treaty (Downie, 2014). The negotiations in Copenhagen in 2009, when the BASIC coalition played a key role, was meant to secure a post-Kyoto treaty, but it too failed to do so. It was not until Paris in 2015, that nations around the

world finally agreed to a new agreement (Falkner, 2016). While the Paris Agreement is no silver bullet, and has been criticised because it places no legally binding obligations on nations to reduce emissions, what it does do is it obliges parties to submit pledges every five years – so-called Nationally Determined Contributions – that set out what each country will do to tackle greenhouse gas emissions (UNFCCC, 2015). The historic nature of the Paris Agreement was reinforced by the speed in which countries ratified the agreement bringing it into force within a year, in contrast to the Kyoto Protocol, which took almost a decade. However, in June 2017 the US, under President Trump, walked away from the Paris Agreement (The White House, 2017). In one more sign of a changing balance of power in the international system, the question that many commentators asked is what role can the BRICS play in the absence of the US? On 7 July 2017, on the margins of the G20 meeting in Hamburg, Germany, BRICS leaders were quick to reaffirm their support for the Paris Agreement calling ‘upon the international community to jointly work towards the implementation of the Paris Agreement on Climate Change’ and the BRICS leaders also signed onto the G20 Leaders’ communiqué expressing the same sentiment (BRICS, 2017b).

In order to consider the capacity of the BRICS to act as a coalition and shape global climate governance agendas in the post-Paris environment, in this section we examine the emissions profile of each of the BRICS, and analyse multilateral and bilateral meetings between BRICS members since Paris to assess the prospects for BRICS cooperation. In particular, to assess the obstacles to the BRICS acting as a coalition on climate change, and at the same time, to identify areas where cooperation between the BRICS could be scaled up.

First, to the emission profile of the BRICS. The capacity of the BRICS to shape global climate governance agendas will be a function of their emission profiles and future emissions projections. The BRICS are already among the top emitters of greenhouse gases in the world largely due to their consumption of fossil fuels. As noted, China and India are the first and third and largest greenhouse gas emitters in the world and Russia, Brazil and South Africa are not far behind. However, the structural profile of their emissions and future projections highlights the large variations between the BRICS and the difficulties this will continue to pose for coordinated action in the coming years.

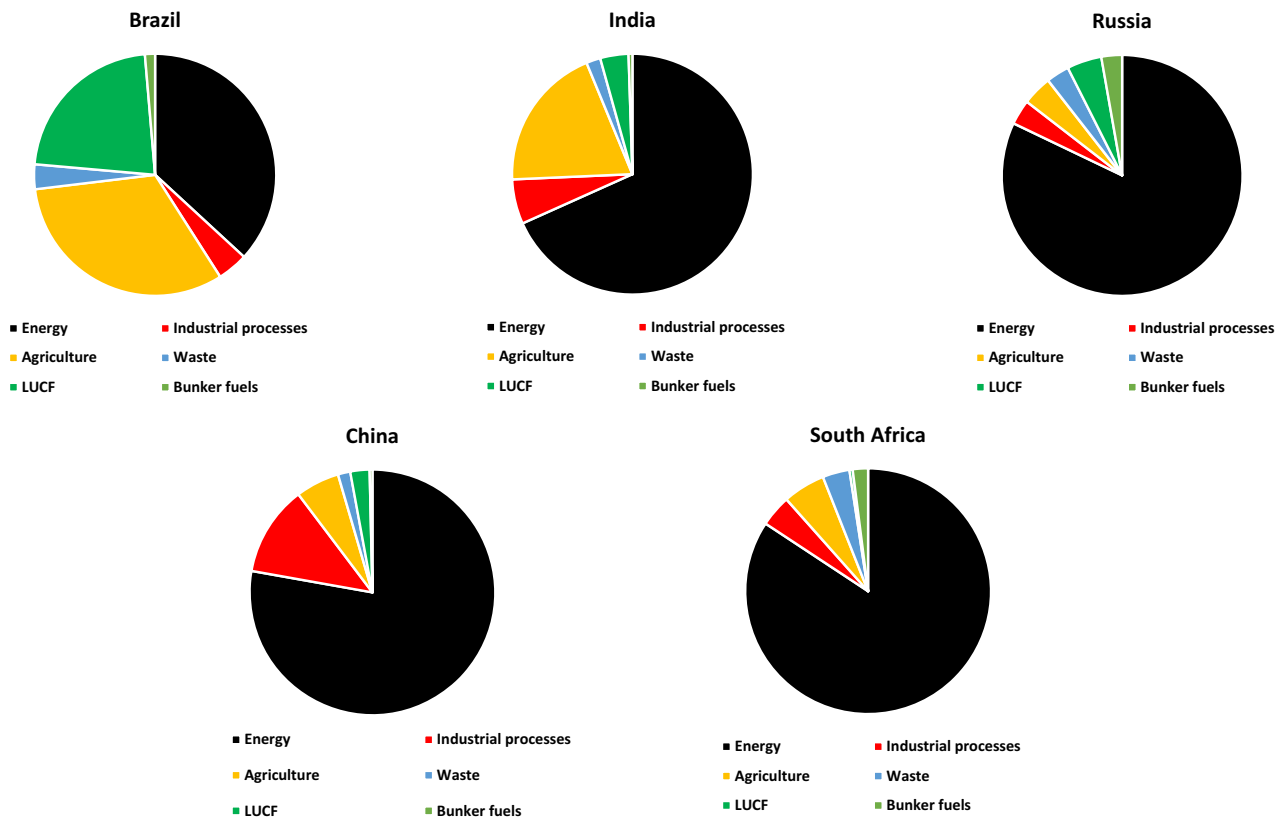
As Figure 1 shows, emissions from the energy sector are the largest source of emissions for each of the BRICS. In India, Russia, China and South Africa emissions from the energy sector are larger than the combined emissions from all other sectors. The exception is Brazil where emissions from agriculture and land use change, such as deforestation, are a significant source of emissions. In fact in Brazil and India emissions from agriculture comprise 32 per cent and 19 per cent of total emissions respectively.

If the BRICS are to play a leading role in future climate debates tackling emissions from the energy sector therefore will be crucial, but a closer examination of energy demand in each country illustrates variations that could impede

future cooperation. As Figure 2 shows, the BRICS continue to consume more energy from fossil fuels than any other source. In China, India and South Africa coal is the largest source of energy demand. Indeed in China and South Africa coal represents around two thirds of total primary energy demand, and in India coal represents just under half of total energy demand. However, in Russia and Brazil oil and gas far outweigh coal. For example, in Russia oil and gas together represent 73 per cent of total primary energy demand, and in Brazil oil and gas represent 62 per cent. As a result, as Figure 2 highlights, significant variations remain in the profile of fossil fuel demand among the BRICS, with coal a major source of demand in China, India and South Africa, compared to oil and gas in Russia and Brazil. Further, these differences are exacerbated by the fact that as large energy consumers, China and India in particular, have an interest in reducing their dependence on imported fossil fuels, whereas Russia and Brazil, as large producers of oil and gas, have a very different interest, namely in increasing exports and higher prices (Downie, 2015).

Accordingly, the role of the BRICS in the post-Paris environment will likely be determined by how effectively they tackle their reliance on fossil fuels. In this context, a consideration of their NDCs is instructive. According to Climate Action Tracker, which tracks and evaluates the commitments of parties to the agreement, China and India are working to restrict emissions from coal. For example, China’s 13th Five Year Plan (2016–2020) looks set to enhance efforts to restrict coal consumption and China is pushing ahead with the implementation of an emissions trading scheme (Climate Action Tracker, 2017). Likewise India too is pursuing measures to reduce its reliance on coal and ramp up renewable energy. For example, India is well on track to increase its share of non-fossil fuels based energy resources to 40 per cent of installed electric power capacity before 2022, well ahead of the 2030 target set out in its NDC (Climate Action Tracker, 2017). In contrast, while Brazil has sought to limit emissions from the energy sector, and has set a nation-wide emissions target, this has been overshadowed by recent developments. Since 2014 Brazil has experienced increasing rates of deforestation in the Amazon and a rising share of fossil fuels in the energy mix, not to mention implementing significant budget cuts to environmental agencies (Climate Action Tracker, 2017). Further, while Brazil has considerable renewable energy, almost all of it is from hydropower and bioenergy, with very little solar and wind energy (IEA, 2017). South Africa fares worse. It is not expected to meet its NDC target to limit emissions based on current policies, and it continues to delay the implementation of the carbon tax it has been planning since 2015. Finally, Russia, which traditionally has been outlier among the BRICS on climate change, which is why it is not a member of the BASIC coalition, according to Climate Action Tracker has ‘one of the weakest [targets] put forward by any government’ in its NDC (Climate Action Tracker, 2017). And, renewable energy, including hydropower and bioenergy, equals only 3 per cent of total primary energy demand (IEA, 2017).

Figure 1. BRICS greenhouse gas emissions by sector.



Source: CAIT Climate Data Explorer (CAIT, 2017).

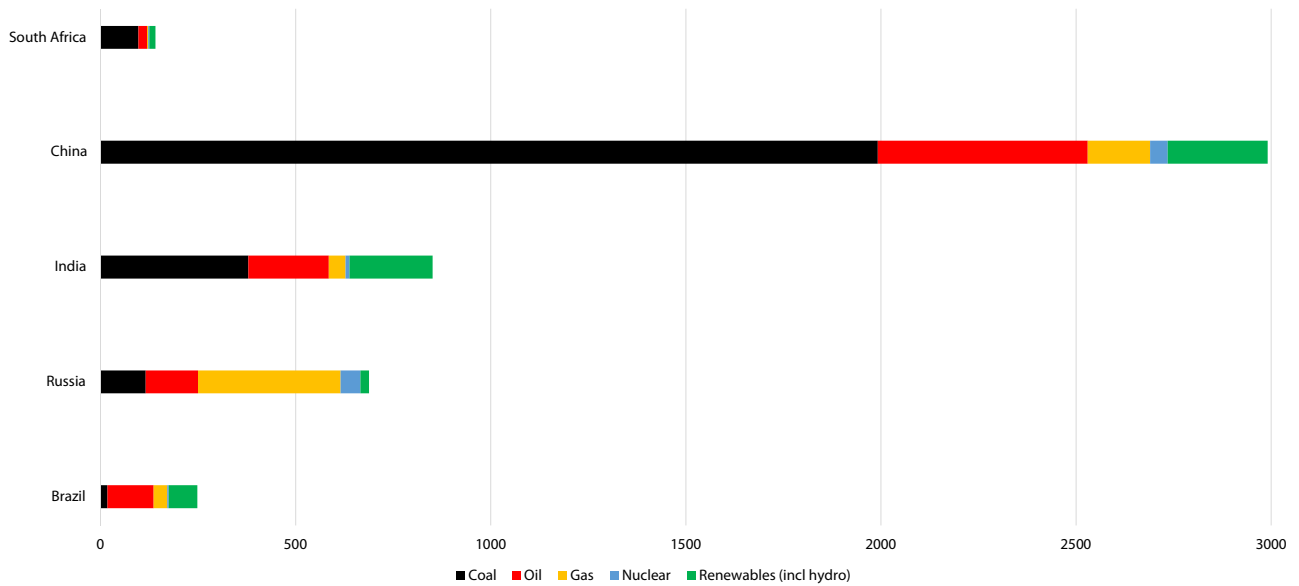
This is reflected in the projections of demand for fossil fuels – see Figure 3. Using the IEA’s New Policy Scenario, which is derived from policies already in place and those officially announced, it is evident that measures to restrict coal consumption in China are expected to take effect with demand for coal declining sharply to 2040. However, in India coal demand continues to increase and in South Africa there is expected to be little change in coal demand out to 2040. In contrast in Brazil and Russia, oil and gas continue to be the largest source of fossil fuel demand. This is perhaps no surprise given that Brazil and Russia’s NDCs show little appetite for significant measures to restrict the use of oil and gas, or in South Africa’s case, to restrict coal, at least for the time being.

This is further highlighted by looking at the projections of emissions from oil, gas and coal out to 2040, under the same scenario, namely the IEA’s New Policies Scenario. As Figure 4 shows, aside from China, the IEA expects that emissions from fossil fuels in Brazil, Russia, India and South Africa, will increase, or decline only slightly. This is in stark contrast to what will be required if the BRICS are to help meet the aim of the Paris Agreement. Indeed even if the Paris Agreement is fully implemented, the United Nations estimates that the world will remain on track to increase global average temperatures by 3.4°C by 2100, well above

the 2°C limit scientists have warned is necessary to avoid climate catastrophe (UNEP, 2016).

In this context, based on the BRICS’ emission profiles and projections, the prospects for coordinated climate action seem dim, especially in the energy sector where strong demand for fossil fuels is expected to continue. Further, their energy interests are significantly divergent. As noted, Russia and Brazil, as large oil and gas producers, tend to benefit from high energy prices, while India and China suffer from them, as large consumers. Consequently, it seems unlikely that the BRICS will act as a coalition in the post-Paris environment, notwithstanding the recent BRICS communiqué reaffirming support for the Paris Agreement (BRICS, 2017b). Instead the BASIC coalition, to the extent that it remains a cohesive grouping, will continue to be the BRICS minus Russia. To be sure, Russia, although it signed the Paris Agreement in April 2016, is the only member of the BRICS not to have ratified the Agreement and President Putin was one of the few world leaders that refused to condemn President Trump’s decision to withdraw the US from the agreement (Mindock, 2017).

Turning now to multilateral and bilateral meetings between BRICS countries, a stocktake of meetings since 2015 suggest that there could be opportunities for cooperation, notwithstanding their emissions profiles. At the

Figure 2. BRICS total primary energy demand 2015, Mtoe.

Source: IEA (2017).

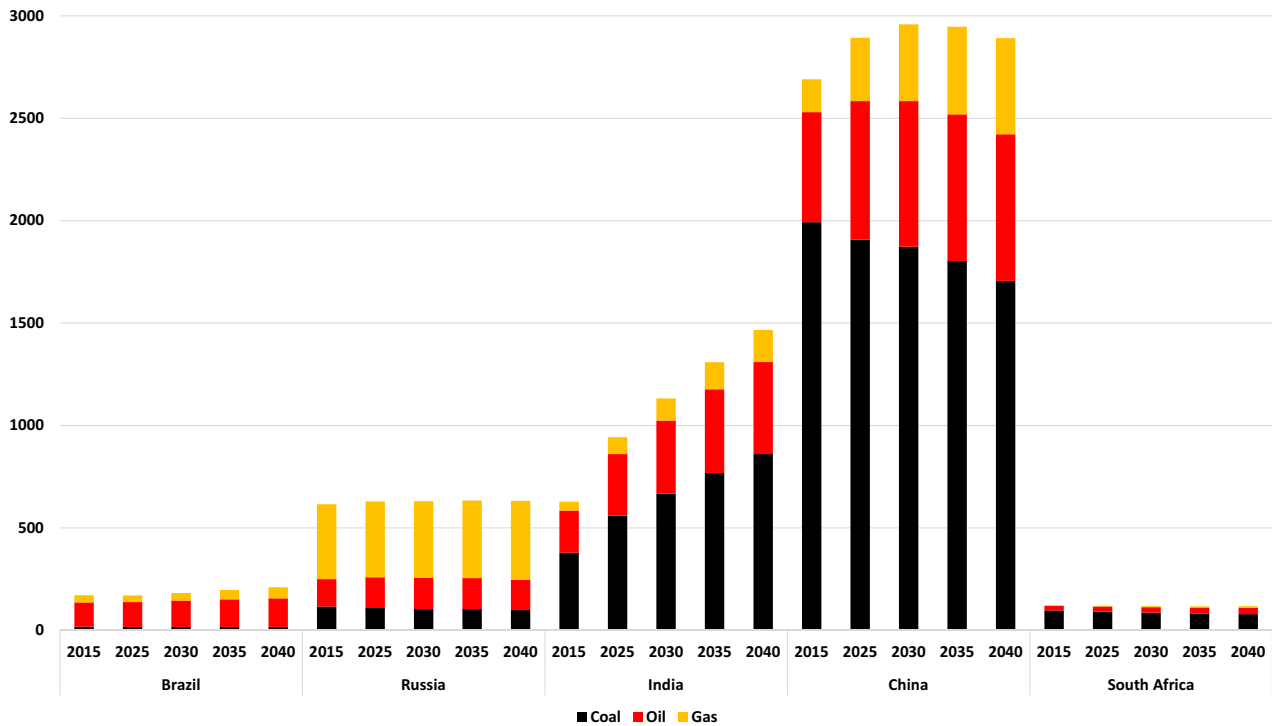
multilateral level, although the BRICS have not established any specific mechanisms for cooperation on climate change, they have begun to hold BRICS environment minister meetings and energy ministers meetings (BRICS, 2015b). One area that appears ripe for cooperation is energy efficiency, given that measures to improve energy efficiency are typically in the interest of all nations, and especially the BRICS given their growing demand for energy. For example, in November 2015, the BRICS signed a 'Memorandum of Mutual Understanding in Energy Saving and Energy Efficiency' with a view to institutionalising energy cooperation within the BRICS (BRICS, 2015a). This was followed in 2016 by the first meeting of the BRICS Working Group on Energy Saving and Energy Efficiency, which sought to advance cooperation in this area (*The Indian Express*, 2016).

A second area is agriculture. As highlighted above, for some BRICS members, particularly Brazil and India, agriculture comprises a significant share of their emissions profile, and more critically, it is also a sector that is vulnerable to the impacts of climate change raising issues of food security. It is perhaps no surprise then that over the last two years the BRICS have increased cooperation in this area. For example, the 2017 BRICS leaders' declaration recognised the 'unique characteristics and complementarity of BRICS countries in agricultural development and vast cooperation potential in this area', and it welcomed the establishment in India of the Coordination Center of BRICS Agriculture Research Platform (BRICS, 2017a). In the short-term, such cooperation is likely to be focused on food security and poverty alleviation, though the lip service paid to sustainable agriculture may provide an opportunity to consider the relationship between agriculture and climate change.

A third area is development finance. While none of the BRICS have pledged to contribute to the Green Climate Fund, which is designed to channel funding to developing countries for mitigation and adaptation activities (Green Climate Fund, 2017), the BRICS could seek to play a larger role via the New Development Bank to mobilise finance for the task of mitigation. According to its Articles of Agreement, the New Development Bank aims to 'mobilize resources for infrastructure and sustainable development in BRICS and other emerging economies and developing countries' (NDB, 2014). In April 2016, it announced its first set of loans of US \$811 million targeted at renewable energy projects in BRICS countries. The largest loan was US\$300 million and is directed at renewable energy generation in Brazil (Esteves et al., 2016). While there are concerns about what 'sustainable development' will mean in practice over the longer term (Soutar, 2016), the resources of the Bank could be marshalled by the BRICS to focus on renewable energy and the infrastructure costs associated with transitioning the energy sector away from fossil fuels.

However, the capacity of the BRICS, and especially China, to act as a climate leader in development finance is hampered by its financing for fossil fuels abroad. For example, China's development finance in the energy sector is overwhelmingly in fossil fuel related projects, not renewable energy. Recent estimates indicate multilateral development banks devote 88 per cent of their energy finance portfolio to renewable energy compared to 28 per cent for China. If hydropower is excluded this falls to one per cent (Gallagher et al., 2016).

BRICS countries also meet bilaterally outside the BRICS summit processes and again while there has been no ground breaking agreements that suggest the BRICS are on

Figure 3. BRICS total primary energy demand of fossil fuels 2015–2040, Mtoe.

Source: IEA (2017).

the brink of re-shaping global governance agendas on climate change, several of these meetings have sought to reinforce cooperation in similar areas. For example, in 2015 a joint statement between China and Brazil on climate change reinforced their desire to increase coordination on a range of climate related issues, including energy efficiency (Government of China and Brazil, 2015). However, for the time being, aside from joint statements, there is little in the way of substantive outcomes.

Arguably the bilateral relationship with the greatest potential to re-shape global climate governance is that between China and India. Not only are they the first and third largest greenhouse gas emitters in the world, but the analysis of their emissions profiles and energy demand suggest that there could be a basis for ongoing cooperation. An obvious example is cooperation on measures to curb coal consumption and address associated air pollution, which has become a domestic political issue in both countries, and was addressed by the most recent BRICS environment ministers meeting held in China in 2017, at which among other things, the ministers reiterated their 'intention to promote cooperation within BRICS in the area of pollution prevention, in particular air pollution' (Zheng, 2017).

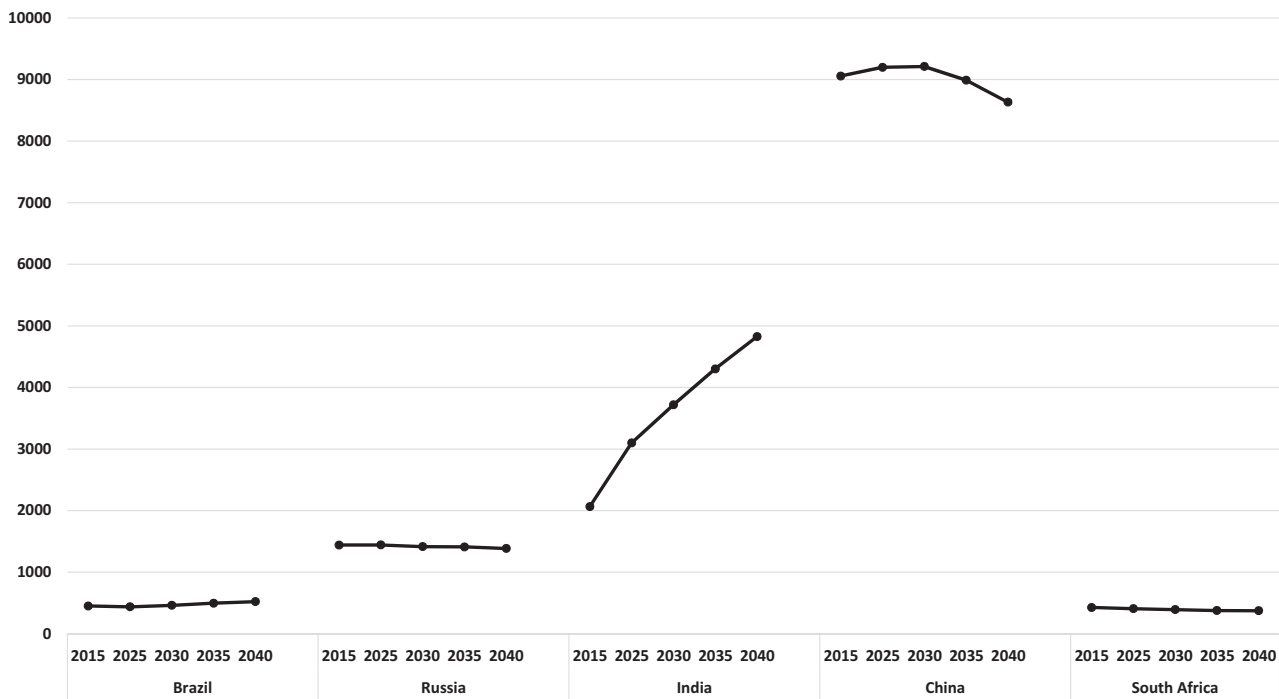
Another example is solar energy, which other scholars have identified as an issue ripe for increased cooperation given China is the largest solar manufacturer in the world and India has an ongoing appetite for solar panels as the country strives to meet its target of sourcing 175 gigawatts of solar by 2022, a target it looks set to surpass (Mizo,

2016). The prospects for cooperation between China and India on solar power in the post-Paris environment were given a further boost at the UNFCCC negotiations in Bonn in 2017, when China announced that it would join the Indian-led International Solar Alliance, which aims to promote solar power in developing countries (Goswami, 2017).

Conclusion

The rapid rise of the BRICS has been paralleled by a rising interest among scholars and policy makers about their influence on international affairs. This has precipitated various inquiries into whether these countries with diverse economic and political structures can effectively participate as a coalition to re-shape international outcomes across multiple policy domains. In this paper, we have extended these inquiries into the climate policy domain, to consider the capacity of the BRICS to re-shape global climate governance agendas in the aftermath of the Paris Agreement in 2015. This is especially important given that in climate policy, and the related energy policy domain, the BRICS are generally considered to be central to the global governance challenges and the potential solutions.

Since 2015 the BRICS have displayed a level of rhetorical commitment to the Paris Agreement, as evident in their statements following the US withdrawal (BRICS, 2017b). However, a closer examination of the BRICS' emissions profiles and multilateral and bilateral meetings between BRICS members since Paris indicate that there remain significant

Figure 4. BRICS total CO₂ emissions from oil, gas and coal to 2040 (Mt).

Source: IEA (2017).

obstacles to the BRICS acting as a cohesive coalition to reshape global climate governance agendas and outcomes. Yet at the same time, such an examination also indicates areas where cooperation between the BRICS could be scaled up in the future.

First, if the BRICS are to play a leading role in future climate debates addressing energy sector emissions will be crucial, given that they are by far the largest source of emissions for each of the BRICS. However, energy demand for fossil fuels in each country and future emission projections highlight the obstacles to coordinated BRICS action. In particular, there are significant variations in their interests as a result of the differing reliance on oil, gas and coal. For example, in China, India and South Africa coal is the largest source of energy demand, whereas in Russia and Brazil it is oil and gas. Critically however, these variations are problematic because as large energy consumers, China and India especially, have an interest in reducing their dependence on imported fossil fuels, whereas Russia and Brazil as large producers of oil and gas have an interest in increasing exports and higher prices.

Further, the projections of demand for fossil fuels among the BRICS and the related emissions projections, indicate that each of the five nations will remain wedded to fossil fuels for decades to come, based on present IEA scenarios, inhibiting their capacity to act as climate change leaders. This is arguably more so for Russia, Brazil and South Africa, whose NDCs show little inclination to take the necessary steps to transition away from fossil fuels with from emissions oil, gas and coal expected to remain steady to 2040.

In contrast, emissions from the energy sector in China are expected to decline, and despite rising emissions, India is taking action to curb coal consumption and slow the growth in emissions.

Second however, a stocktake of multilateral and bilateral meetings between the BRICS since 2015 suggest that there are areas that could be ripe for cooperation. While by no means an exhaustive list, from the above analysis three areas can be identified: energy efficiency, agriculture and development finance. In each of these areas BRICS cooperation could be scaled up, and there has already been nascent institutionalisation of new mechanisms for BRICS cooperation. For example, the BRICS have identified energy efficiency as a priority area in the domain of climate and energy, and in 2016 they established a Working Group in Energy Saving and Energy Efficiency.

Third, bilateral relationships between BRICS members could help to shape global climate governance agendas going forward and over time provide a basis for coordinated BRICS action. The bilateral relationship with the greatest potential is that between China and India. This is not simply because they represent two of the top three greenhouse gas emitters in the world, but their emissions profiles and primary energy demand suggest areas that could be a basis for ongoing cooperation, such as efforts to address coal consumption and associated air pollution. Further, solar energy is an area in which both nations have an expressed interest, with China now established as the largest solar manufacturer in the world, and India pursuing significant measures at home and initiatives abroad, such as the

International Solar Alliance, to drive down solar costs and boost solar supply.

These findings suggest an important implication for the future of the BRICS in global climate governance in the post-Paris environment. While the BRICS may not have acted as a coalition in global climate policy to date, and our analysis shows that there are significant obstacles to this changing in the short-term, that does not mean they will not in the future. Over time national interests change and in turn so too do preferences. What the BRICS have done in recent years is laid the institutional groundwork for future cooperation in a range of climate related areas. This distinction between the institutionalisation of the BRICS versus their behaviour as a coalition is an important one, because should the BRICS activate these mechanisms for cooperation to pursue substantive global governance reform in the future they could prove effective at reshaping global agendas and institutions.

Future research therefore should examine coordinated actions of the BRICS in areas such as energy efficiency, agriculture and development finance, to consider whether there are ongoing prospects for the BRICS to shape outcomes in these areas, which could in turn be a basis for coordinated action more generally. In the first instance this would require a detailed analysis of BRICS' interests in these areas. Such work could be complemented by a systematic consideration of the extent to which bilateral relationships between BRICS nations could reinforce wider BRICS cooperation.

Note

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References

- Amorim, A., Mattos, B. and Morales, M. S. (2015) 'The BRICS on the Road to COP 21', Policy Brief - V. 5 N. 11. Rio de Janeiro: BPC.
- Bodas Freitas, I. M., Dantas, E. and Iizuka, M. (2012) 'The Kyoto Mechanisms and the Diffusion of Renewable Energy Technologies in the BRICS', *Energy Policy*, 42, pp. 118–128.
- BRICS (2014) 'Agreement on the New Development Bank', [online]. Fortaleza, Brazil. Available from: <http://brics6.itamaraty.gov.br/media/2/press-releases/219-agreement-on-the-new-development-bank-fortaleza-july15> [Accessed 14 March 2018].
- BRICS (2015a) 'Memorandum of Mutual Understanding in Energy Saving and Energy Efficiency among the Ministries and Governmental Agencies of BRICS, Responsible for Energy and Energy Efficiency', [online]. Moscow. Available from: <http://www.brics.utoronto.ca/docs/151120-energy.html>.
- BRICS (2015b) 'Statement: First Official Meeting of BRICS Environment Ministers', [online]. Available from: <http://www.brics.utoronto.ca/docs/150422-environment.html> [Accessed 21 June 2016].
- BRICS (2017a) 'BRICS Leaders Xiamen Declaration', [online]. Available from: http://www.bricschn.org/English/2017-09/05/c_136583711.htm.
- BRICS (2017b) 'Press Communique of the BRICS Leaders' Informal Meeting on the Margins of the G20 Hamburg Summit', [online]. <http://en.kremlin.ru/supplement/5221>: July 7.
- Brütsch, C. and Papa, M. (2013) 'Deconstructing the BRICS: Bargaining Coalition, Imagined Community, or Geopolitical Fad?', *The Chinese Journal of International Politics*, 6 (3), pp. 299–327.
- CAIT (2017) 'CAIT Climate Data Explorer', [online]. Washington DC: World Resources Institute. Available from: <http://cait.wri.org>.
- Chin, G. T. (2014) 'The BRICS-led Development Bank: Purpose and Politics beyond the G20', *Global Policy*, 5 (3), pp. 366–373.
- Climate Action Tracker (2017) Available from: <http://climateactiontracker.org/indcs.html> (accessed on 20 July 2017).
- Downie, C. (2014) *The Politics Of Climate Change Negotiations: Strategies and Variables in Prolonged International Negotiations*. Cheltenham: Edward Elgar.
- Downie, C. (2015) 'Global Energy Governance: Do The BRICs Have the Energy to Drive Reform?', *International Affairs*, 91 (4), pp. 799–812.
- Duggan, N. (2015) 'BRICS and the Evolution of a New Agenda Within Global Governance', in M. Rewizorsk (ed.), *The European Union and the BRICS: Complex Relations in the Era of Global Governance*. Cham: Springer International Publishing, pp. 11–25.
- Esteves, P., Gomes, G. Z. and Torres, G. (2016) 'BRICS and the New Development Bank', Policy Brief - V. 6 N. 3. Rio de Janeiro: BPC.
- Falkner, R. (2016) 'The Paris Agreement and the New Logic of International Climate Politics', *International Affairs*, 92 (5), pp. 1107–1125.
- Gallagher, K., Kamal, R. and Wang, Y. (2016) *Fuelling Growth and Financing Risk: The Benefits and Risks of China's Development Finance in the Global Energy Sector*. Boston: Boston University.
- Gladun, E. and Ahsan, D. (2016) 'BRICS Countries' Political and Legal Participation in the Global Climate Agenda', *BRICS Law Journal*, 3 (3), pp. 8–42.
- Glosny, M. A. (2010) 'China and the BRICS: A Real (but Limited) Partnership in a Unipolar World', *Polity*, 42 (1), pp. 100–129.
- Goswami, U. (2017) 'India Scores Victory in Climate Talks, China Announces Plan to Join International Solar Alliance', [online]. Available from: <https://economictimes.indiatimes.com/news/politics-and-nation/india-scores-victory-in-climate-talks-china-announces-plan-to-join-international-solar-alliance/articleshow/61712055.cms>.
- Government of China and Brazil (2015) 'Joint Statement on Climate Change between the Government of the People's Republic of China and the Government of the Federative Republic of Brazil', [online]. Available from: <http://en.ccchina.gov.cn/archiver/ccchinaen/UpFile/Files/Default/20150521102001198192.pdf>.
- Green Climate Fund (2017) 'Resources Mobilized', [online]. Available from: <http://www.greenclimate.fund/partners/contributors/resources-mobilized> [Accessed 10 March 2017].
- Hallding, K., Olsson, M., Atteridge, A., Carson, M., Vihma, A. and Roman, M. (2011) *Together Alone: BASIC countries and the climate change conundrum*. Copenhagen: Nordic Council of Ministers.
- Happaerts, S. and Bruyninckx, H. (2013) *Rising Powers in Global Climate Governance. Negotiating in the New World Order*. Working Paper No. 124. Leuven: Leuven Centre for Global Governance Studies.
- Hurrell, A. (2006) 'Hegemony, Liberalism and Global Order: What Space for Would-be Great Powers?', *International Affairs*, 82 (1), pp. 1–19.
- Hurrell, A. and Sengupta, S. (2012) 'Emerging Powers, North–South Relations and Global Climate Politics', *International Affairs*, 88 (3), pp. 463–484.
- IEA (2016) *World Energy Outlook 2016*. Paris: International Energy Agency.
- IEA (2017) *World Energy Outlook*. Paris: International Energy Agency.
- Jinnah, S. (2016) 'Climate', in A. Acharya (ed.), *Why Govern? Rethinking Demand and Progress in Global Governance*. Cambridge: Cambridge University Press, pp. 192–210.

- Leal-Arcas, R. (2013) 'The BRICS and Climate Change', *International Affairs Forum*, 4 (1), pp. 22–26.
- Luckhurst, J. (2013) 'Building Cooperation between the BRICS and Leading Industrialized States', *Latin American Policy*, 4 (2), pp. 251–268.
- Mindock, C. (2017) 'Vladimir Putin Refuses to Condemn Trump for Pulling Out of Paris Climate Deal, Tells World: "Don't Worry, Be Happy"', *The Independent*. Available from: <http://www.independent.co.uk/news/world/americas/us-politics/paris-agreement-putin-trump-russia-climate-change-response-latest-news-dont-worry-be-happy-a7769326.html> [Accessed 13 March 2018].
- Mizo, R. (2016) 'India, China and Climate Cooperation', *India Quarterly*, 72 (4), pp. 375–394.
- NDB (2014). 'Agreement on the New Development Bank' [online]. New Development Bank BRICS. Available from: <http://ndbbrics.org/agreement.html>.
- Qobo, M. and Soko, M. (2015) 'The Rise of Emerging Powers in the Global Development Finance Architecture: The Case of the BRICS and the New Development Bank', *South African Journal of International Affairs*, 22 (3), pp. 277–288.
- Rinaldi, A. L. & Martuscelli, P. N. (2016) 'The BRICS on Climate change Global governance', *Meridiano*, 17, pp. 1–10. Available from: <http://periodicos.unb.br/index.php/MED/article/view/M47e17020/17063> [13 March 2018].
- Soutar, R. (2016) 'First BRICS Bank Loans Spark Debate over Environmental Protection', [online]. Available from: <https://www.chinadialogue.net/article/show/single/en/8884-First-BRICS-bank-loans-spark-debate-over-environmental-protection> [Accessed 15 February 2017].
- Stuenkel, O. (2013) 'The Financial Crisis, Contested Legitimacy, and the Genesis of Intra-BRICS Cooperation', *Global Governance*, 19 (4), pp. 611–630.
- The Indian Express (2016) 'BRICS' Meeting on Energy Efficiency to Commence on Monday', [online]. Available from: <http://indianexpress.com/article/india/india-news-india/brics-meeting-on-energy-efficiency-to-commence-on-monday-2891207/>.
- The White House (2017) 'Statement by President Trump on the Paris Climate Accord', [online]. Available from: <https://www.whitehouse.gov/the-press-office/2017/06/01/statement-president-trump-paris-climate-accord>: 1 June.
- Ujvari, B. (2015) 'BRICS bloc(k) rising?', *European Union Institute for Security Studies* [online]. September. Available from: http://www.iss.europa.eu/uploads/media/Brief_17_BRICS.pdf [Accessed 16 June 2016].
- UNEP (2016) *The Emissions Gap Report 2016*. Nairobi: United Nations Environment Programme.
- UNFCCC (2015) 'Paris Agreement on Climate Change', [online]. Available from: http://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf [Accessed August 12, 2016].
- Viola, E. and Basso, L. (2016) 'Wandering Decarbonization: The BRIC Countries as Conservative Climate Powers', *Revista Brasileira de Política Internacional*, 59 (1), pp. 1–22.
- Williams, M. (2005) 'The Third World and Global Environmental Negotiations: Interests, Institutions and Ideas', *Global Environmental Politics*, 5 (3), pp. 48–69.
- World Bank (2014) *Purchasing Power Parities and Real Expenditures of World Economies: Summary of Results and Findings of the 2011 International Comparison Program*. Washington DC: World Bank.
- Zhang, Z. (2017) 'Are China's Climate Commitments in a Post-Paris Agreement Sufficiently Ambitious?' *Wiley Interdisciplinary Reviews: Climate Change*, 8 (2), e443. Available from: http://www.chinadaily.com.cn/china/2017-06/24/content_29869314.htm [Accessed 13 March 2018].
- Zheng, J. (2017) 'BRICS Pledges Environment Cooperation'. *China Daily*.

Author Information

Christian Downie is an Australian Research Council DECRA Fellow in the School of Regulation and Global Governance at The Australian National University.

Marc Williams is Professor of International Relations and Associate Dean (International), UNSW Arts & Social Sciences at UNSW Sydney. His most recent book (with Duncan McDuie-Ra) is *Combating Climate Change in the Pacific: the Role of Regional Organisations* (Palgrave, 2018).