

The pressures of resource scarcity

More constructive international cooperation is needed to tackle unequal access to resources

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Most economists would say that global resources are abundant. We produce more than enough food to support the global population; there is sufficient freshwater to meet our sanitary, agricultural and industrial needs; and there are more than enough hydrocarbons to cook the planet several times over. The issue is rather one of local scarcities and unequal access. This is most obvious in the case of water, where uneven geographic distribution means that 1.2 billion

people live in areas of physical water scarcity.¹ Wide disparities in incomes and resource endowments translate to similarly stark inequalities for traded resources such as food and fuel. Estimates indicate that 870 million people are undernourished, while 1.4 billion are overweight or obese.² Per capita energy use in Qatar is more than 55 times greater than in Haiti.³

Though resources are not running out, as populations grow and economies develop, the challenges of accessing them are mounting. Increasing production in many cases will add to environmental pressures, for example the

■ **Women bring their children to a community malnutrition screening in the town of Nokou, in Chad's Kanem region. They are arriving from villages up to 25km away**



move towards ‘difficult’ hydrocarbon and metals extraction requires additional inputs, namely energy and water. Resource security is now a priority for governments the world over. Markets for many resources are likely to remain tight and unstable as demand growth outstrips production and stocks struggle to recover. Government interventions in resource markets, such as biofuel mandates and export controls, often make things worse. In the medium term, climate change will create local scarcities in vital resources such as food and water, increase market instability by disrupting production and trade, and by fuelling conflict.⁴

The era of cheap food and energy – the lifeblood of earlier industrialisations – is over. Climate change means earlier resource-intensive development pathways are no longer viable. Development models must adapt to this new reality. Five priorities for doing so are outlined below:

Improve governance and transparency

The quest for resources means that production frontiers are expanding into marginal areas in poor countries with weak governance and high vulnerability to climate change. Avoiding a plague



of resource curses requires new institutions to protect natural capital, ensure transparency, mitigate corruption and invest resource revenues equitably. This will help attract responsible investors and safeguard against output disruption from political, social or environmental shocks.

Get the resource prices right

Whether in developed or developing countries, resource prices rarely incorporate environmental costs or reflect scarcities. Fossil fuel subsidies exceeded \$0.5 trillion in 2011, presenting a major barrier to investments in energy efficiency and clean energy.

The widespread failure to price water appropriately costs between \$200 and \$300 million a year in implicit subsidies and is exacerbating groundwater depletion in water-scarce regions. While many developed countries have made real progress in removing the most damaging agricultural subsidies, significant levels of production distorting support remain in place, constraining investment in developing country agriculture where the greatest potential to increase yields lies.⁵

Unlock financing for clean development

Removing fossil fuel subsidies (both production and consumption) will help level the playing field in favour of clean energy, but low-carbon investments typically still carry an additional cost for poor countries embarking on untested, costlier development pathways.

Manage risk and reduce vulnerability

Exposure – of people and assets – to natural disasters is increasing due to rapid urbanisation and poor planning in developing countries. Climate change will increase the frequency and severity of extreme weather events while simultaneously increasing vulnerability through creeping changes such as sea level rise and desertification. Environmental change and local resource scarcities will multiply pre-existing conflict risks. International markets (and import-dependent countries) will become increasingly vulnerable to supply disruptions in key resource producers, whether due to climate change, social instability or other stressors.

For development to be sustainable, risks to development must be managed. Disaster risk reduction, social protection and climate change adaptation must become key elements of the development toolkit.

Global action to reduce greenhouse gas emissions

Without concerted action to reduce global greenhouse gas emissions, the end of the century could see global temperatures rise by 4°C or more, with potentially profound implications for the incidence of food and water scarcity. Under these

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conditions, the international political economy of resources could be strained to breaking point.

2015 provides a unique opportunity to build consensus and catalyse action around these (and other) issues. In addition to a new global development agenda to replace the outgoing Millennium Development Goals, the international community also has the opportunity to agree a new international framework on disaster risk reduction, and a global deal to tackle climate change.

However, the international community's recent track record on these issues is not encouraging. The failure of the 2009 Copenhagen climate conference still looms large over the UN Framework Convention on Climate Change. The G20 was hamstrung in its attempts to deal decisively with food price volatility in 2011 by the intractable politics of biofuels, export bans and agricultural subsidies. A year later, the UN's 'Rio+20' sustainable development summit agreed little of substance.

International negotiations such as these are too easily hijacked by resource politics driven by domestic interest groups and following the logic of narrow self-interest and short-term competitiveness. Political risks are sharpened by perceptions of resource scarcity, making cooperation more difficult.

The prospects for agreement are greatest where solutions do not challenge resource politics. Pledges to invest in agriculture are easier to make than commitments to dismantle agricultural subsidies or biofuel mandates. Initiatives to improve transparency and governance may have traction at the international level, but will face challenges of implementation and enforcement at the national level, where they will come up against powerful interests.

Unfortunately, climate change faces the greatest resistance, as solutions are fundamentally about disrupting the entire political economy of energy resources: limiting and redistributing resource use; withdrawing rents and creating new ones.

But even for energy, resource politics can shift. They are doing so now. Horizontal drilling and hydraulic fracturing have unlocked major reserves of shale gas and tight oil in the US. Although claims of energy independence in two decades are probably overstated, the US will nevertheless drastically reduce

its dependence on petroleum imports and become a net exporter of natural gas.⁶

This has several important consequences for resource politics. First, the easy emissions savings from displacing coal with gas have opened the political space for national action on climate change, as demonstrated by President Obama's 2013 climate change action plan. In turn, the prospects for a global deal on climate change look a little better than perhaps they did at the first pass in 2009.

Less happily for climate change, the US Energy Information Agency estimates that, globally, technically recoverable reserves of natural gas have increased by 47 per cent.⁷ Concerns about peak hydrocarbons have vanished. Should the technology prove to be transferable, many countries may improve energy security by tapping newly recoverable reserves of hydrocarbons rather than developing renewables. As displaced US coal is increasingly exported and burned overseas, the need for a second, countervailing disruptive technology – carbon capture and storage – has never looked more urgent.

Finally, the principal justification for US biofuel policy – increasing dependence on foreign oil – has suddenly evaporated. Newly accessible reserves of tight oil mean US petroleum imports will decline for at least the next two decades.⁸ The early attraction of biofuels has waned as their economic costs and impacts on food price volatility have become apparent and their role as an indirect driver of deforestation better understood.⁹ Nevertheless, it is probably premature to predict the demise of biofuel mandates, which remain a valuable source of resource rents for domestic farm lobbies.

Resource politics can change rapidly but will always take precedence over environmental and international development agendas, and will always trump sound economics or robust science. For this reason, international cooperation on sustainable development and a successful 2015 outcome depend upon creating a more constructive resource politics that favours cooperation over competition and creates the space for governments to pursue less reactive, more collaborative agendas.

As 2015 approaches, resource diplomacy is more important than ever. ■

- 1 IWMI (2007), *Water for Food, Water for Life: A Comprehensive Assessment of Water Management in Agriculture*, London: Earthscan.
- 2 FAO (2012), *State of Food Insecurity in the World – 2012*, Rome: Food and Agriculture Organization, and WHO (2013), Factsheet No. 311, Obesity and Overweight, Geneva: World Health Organization.
- 3 2010 per capita energy use, World Bank Development Indicators.
- 4 Lee, B. et al (2012), *Resources Futures*, London: Chatham House.
- 5 For example, according to the Organisation for Economic Co-operation and Development (OECD), in the European Union the most distorting subsidies now account for less than 30 per cent of producer support compared to more than 90 per cent in the 1990s. However, in absolute terms this is still a large number – around \$30 billion a year. See OECD (2011), *Evaluation of Agricultural Policy Reforms in the European Union*, OECD: Paris.
- 6 Mitchell, J (2013), *US Energy: the New Reality*, Chatham House: London.
- 7 EIA (2013), *Technically Recoverable Shale Oil and Shale Gas Resources: An Assessment of 137 Shale Formations in 41 Countries Outside the United States*, US Department of Energy.
- 8 Mitchell, J. (2013).
- 9 Bailey, R. (2013), *The Trouble with Biofuels: Costs and Consequences of Expanding Biofuel Use in the United Kingdom*, Chatham House: London.